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UGC changes its tune over tenure advice

by Ngaio Crequer and David Jobbins

The University Grants Committee has backtracked on its original intention to tell the Government how to end tenure for university lecturers. Instead, in advice to Sir Keith Joseph, the Secretary of State for Education and Science, the UGC warns of the pitfalls involved in legislating to end tenure for new lecturers.

Crucially, the advice contains a stirring defence of academic freedom and explains why it is so important. The protection of academic freedom must be given as much weight as any proposal to abolish tenure, argues the UGC. The advice is neutral on whether Sir Keith is right to proceed with legislation, currently timetable for inclusion in the Queen's Speech this November, and says little specific about how the proposed statutory commissioners should go about their task.

The idea of sending in statutory commissioners into the

universities to amend statutes was put forward by Sir Peter Swinnerton-Dyer, the UGC chairman, and adopted by Sir Keith.

The advice falls short of the hard line originally intended by Sir Peter when he told Sir Keith the committee would be prepared to comment if asked.

A known hawk on tenure, he wanted to give the Government firm guidelines. But a small group of academics on the committee has forced him to compromise. The UGC has also said it would like to come back at a later stage when the debate has been taken further.

The UGC wants the terms of reference of the commissioners to be more extensive than simply a two-line instruction to abolish tenure. They also recommend that the Association of University Teachers and the Committee of Vice Chancellors and Principals should be asked for their views, which is virtually a request for publication.

The UGC also warns of the legal problems the Government will face in changing lecturers' contracts, points out that some universities have altered their statutes to try to increase flexibility, and says that there will be complications involved in lecturers with tenure not wishing to move to jobs where tenure will not be given.

But the UGC does agree that there should be a workable procedure for dismissing incompetent lecturers.

Incompetent lecturers at Oxford University cannot be sacked under existing statutes, according to legal advice. Counsel's opinion sought by the university on the existing powers to dismiss academics who fail to carry out their duties satisfactorily pinpointed a gap which had gone unnoticed for 20 years.

Now the university's Hebdomadal Council has decided to plug the gap and strengthen the powers of the Visitation Board so that cases of incompetence can be dealt with.

Statutes enacted in 1963 gave tenure until retirement age after a first appointment - subject to satisfactory performance. The university assumed that the Visitation Board could deprive academics of office for neglect of their duties.

But the counsel's opinion, sought when questions were raised during a wider examination of the tenure issue, is that contrary to the assumption at the time, incompetence is not covered. Comments from inside the university on the proposed changes have been invited by February 15.

Meanwhile at Cambridge voting which could lead to detailed consideration of changes in tenure will be taking place later this month. The university wants to introduce the possibility of redundancy on grounds of financial exigency under its own terms without waiting for ministers to weaken tenure through legislation.

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Anti-semitic work remains a closed book

by Karen Gold

Historians wanting to examine a book of the nineteenth century explorer and notorious anti-semitic Sir Richard Burton have been refused access to it by the Board of Deputies of British Jews.

Controversy over publication of the book goes back almost 90 years. Called *The Jew, the Gypsy and Islam*, it was published in a heavily censored form after representations from the board, in 1898. It contains "evidence" purportedly found by Burton of tales of human sacrifice practised by sephardic Jews.

The board now owns the copyright and the complete manuscript, which it keeps in a bank vault, according to

answers given to board member Dr Geoffrey Alderman, reader in politics at Royal Holloway and Bedford Colleges, who has taken up the case of several scholars recently refused access to it.

He was told by the board that two of its members - the secretary-general and vice-president - had examined the manuscript but no one else would be allowed to look at it. He was also told that he could not ask further questions about it at a meeting of the board chaired by its chairman and Labour MP Mr Greville Janner.

Dr Alderman is pressing for a group of historians nominated by bodies of unquestioned respectability such as

the Royal Historical Society and the Jewish Historical Society of England to be allowed to examine the manuscript and recommend to the board the extent to which bona fide historians should be allowed to see it.

One historian who has been refused access is Dr Colin Holmes, reader in economic and social history at Sheffield University, who wanted to consult Burton's book for his work on British anti-semitism.

The board's secretary-general, Mr Hayim Pinter, said that the board felt that the restricted part of the book, which dealt with the "medieval blood-libel" on the Jews could not serve any useful purpose for anyone.

Particle physicists angry over CERN criticism

by Jon Turney
Science Correspondent

British particle physicists have reacted strongly to criticisms of the European Nuclear Research Centre (CERN) in Geneva from the Science Policy Research Unit at Sussex University. They say a recent paper from SPRU by Drs Ben Martin and John Irvine on future prospects for CERN bears no relation to earlier papers assessing past performance of particle accelerators. And they contest the SPRU authors' adverse forecast of the likely success of the new £400m machine now being built at CERN.

The physicists are concerned about the impact of the work at Sussex on the Kendrew committee's inquiry into future British participation in high energy physics, due to be completed this spring. And some are angry at the way

the work has been presented. Professor John Dowell of Birmingham University, chairman of the Science and Engineering Research Council's particle physics committee, said the SPRU work was insubstantial, and the press release accompanying the paper was "quite outrageous and grossly misleading".

Professor Dowell, who is also convenor of an *ad hoc* group of physicists submitting evidence to Kendrew, has prepared a detailed rebuttal of the SPRU analysis for the committee. He argues the third paper's method has almost no overlap with the analysis of publications, citations and interviews used to assess past performance of different machines in Martin and Irvine's earlier work. And Professor Dowell attacks their procedure for weighing future prospects, which produces an unfavourable comparison between the 27km large electron positron

collider (LEP) in Geneva and another, cheaper, machine under construction at Stanford in California.

His paper says: "An excessive claim is made for a new tool which consists merely of putting plusses and minuses against 13 advantages and disadvantages shown by a number of accelerators." Professor Dowell also takes issue with the SPRU view that there was little discussion of LEP before approval, saying there was widespread discussion in the physics community.

He concludes that the paper produces nothing new in assessing the merits of different accelerator proposals, and "the attempts to predict future performance are demonstrably a shot in the dark". However, he concedes that completion of the Stanford machine before LEP giving the Americans a lead in crucial experiments - one of the main points of the SPRU work - is not excluded.

Other particle physicists who back the general thrust of Professor Dowell's critique include Professor Tom Kibble of Imperial College, London. He said the SPRU work on assessing past performance had produced interesting results, but most particle physicists would part company with Martin and Irvine when they tried to predict the future.

Dr Martin, commenting on Professor Dowell's paper, said the third SPRU publication on CERN was strongly linked to the first two, which had generated the criteria used to assess future prospects. It was not surprising these criteria were not new to high energy physicists. The point of the work was to raise these criteria with a wider audience, to encourage a more broadly based debate about decisions in "big science".

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Stanley puts his best hoof forward

Stanley the horse takes exercise after an operation at Liverpool University's veterinary department to relieve arthritis in a leg joint. Stanley, seen with his Karen Middleton, animal assistant at the Leehurst veterinary field station, works for the Liverpool parks security force, but is also popular in local schools where he performs as a counting horse.

Plus ça change . . .

by David Walker

Universities were considered a soft touch for spending cuts by Sir Winston Churchill's Cabinet 30 years ago, according to Cabinet papers released this week.

Minutes now available at the Public Record Office show Viscount Swinton, leading a committee on civil expenditure, meeting a blunt refusal by the health minister Ian Macleod to raise prescription charges and the reluctance of Churchill himself to increase school meals charges. But the Treasury, which was then responsible for the University Grants Committee, found easy scope for savings there.

"The proposed saving of £2m on capital expenditure by the universities had been discussed with the UGC", the minutes runs, "and there was no reason to expect that it would arouse any determined opposition. The saving proposed would not reduce the level of current expenditure on technological facilities at the universities and would merely slow down the pace of new capital expenditure."

But in 1954 the Cabinet did tussle over school teachers' pensions and the introduction of new-fangled parking meters.

British degree plan for Malaysians

by John O'Leary and Geoffrey Parkins

Hundreds of Malaysian students each year would receive British degrees after spending only the final year of their course in Britain under a proposed university twinning scheme already discussed at ministerial level. The initiative was announced by Mr Abdullah Ahmad Badawi, the Malaysian minister of education, at the opening of the British Council's student counselling service in Kuala Lumpur. He expected the number of Malaysian students in Britain to rise significantly from the present 12,350 if the scheme was successful.

One thousand students have been selected for the scheme already, 800 sponsored by the Malaysian government and 200 privately supported. They will begin courses at local universities and then apply for places in Britain for September 1987 if the plan goes ahead.

The groundwork was done last autumn during a visit to London by Mr Badawi. Sir Keith Joseph, Secretary of State for Education and Science, gave general support to the idea of twinning universities and officials discussed the proposal in more detail.

However, the essentials of the scheme, including who would pay for the students' British year and which university would award the degree, have yet to be decided. Universities in the United States which have begun to operate a similar scheme award their own degrees, and Malaysia will press for the same arrangements in Britain. But British universities will be reluctant to allow this.

Individual universities will be consulted in the next few weeks, when the British Council publishes its market survey of demand for overseas student places from Malaysia. But Mr Jack Butterworth, vice-chancellor of Warwick University and chairman of the council's committee for international cooperation in higher education, said this week that he thought degrees would have to be awarded by the Malaysian university.

He expected the students' year in Britain to be considered as credit towards a honours degree, along the lines operated with a number of American universities. The home university also awards the degree where split PhD programmes exist.

Special in Life



An Open University students team won *University Challenge* for the first time ever in 1984, beating St Andrews in the final and becoming one of the highest scoring teams the programme has known. The team, seen here with their microcomputer prize, then went on to beat OU dons in a challenge match by 370 points to 160. Team members were: Tony Elbra, Marjorie Sachs, Barbara Thompson, and David Wintle, with reserves Frank Brenchley and Alan Glencross.

SERC group calls for computing centre

by Jon Turney
Science Correspondent

Britain needs a new national centre for research computing to ensure scientists in this country have access to the next generation of super-fast computers, the Science and Engineering Research Council should receive extra funds to set up such a centre.

This recommendation from an internal SERC review group will be considered by a new working party of the Advisory Board for the Research Councils, the University Grants Committee and the Computer Board for Universities and Research Councils.

The working party will also look at the need for greater coordination between these three sources of funding for academic computing as "stand alone" computers used by individual research groups become much more powerful, and computer networking grows more extensive.

The earlier SERC review group, chaired by Professor A. G. Macfarlane of Cambridge University, concluded there was strong demand for access to the fastest possible computers. Existing supercomputers like the Cray 1 can carry out over 100 million operations a second and cost around £25m. There are 11 machines in this class in the UK now, but only two available for academic use.

The next generation of supercomputers will be ten times as fast, and cost at least twice as much. Although researchers in fields as varied as protein crystallography, nuclear physics and oceanography will want to use such machines, the SERC believes it is

beyond its remit, and its budget, to provide one.

However, the SERC group's report concluded that if the Computer Board or the ABCR earmarked the money for such a machine, the SERC is the only body with the expertise to run it and develop suitable programs. The Cray machine now at the University of London Computer Centre was run by the SERC's Daresbury laboratory until July 1983.

This will be one of the options before the new joint working party, chaired by Professor John Forth of Warwick University, a member of the computer board and the UGC, and of the earlier SERC group. Other members of the group, due to report by next June, include Professor Macfarlane, Dr Walter Bodmer of the Imperial Cancer Research Fund, Professor Frank Sumner of Manchester University and Dr Sidney Brenner, director of the Medical Research Council's Laboratory for Molecular Biology in Cambridge.

Meanwhile, the SERC has appointed a new director of computing, Dr Brian Davies, to reorganize computing provision within the council. The Macfarlane group found that existing funding mechanisms for computers within the SERC had broken down completely, in the face of cash shortage and a reluctance in the four SERC boards to pay for software support and networking.

Dr Davies will manage a transfer of responsibility for these services to council as a whole, with the individual boards retaining the job of organizing computing for their own experimental laboratories.

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Scots AUT slams 'assault on the young'

The Government has chosen this year to launch an assault on young people, particularly on their right to learn, although 1985 is the International Year of Youth.

This was said by Mr Sandy Young, chairman of the Association of University Teachers (Scotland), in a New Year message to university lecturers.

Mr Young said young people must be treated as adults in higher education, rather than having their grants reduced and being made increasingly dependent on their parents. The Scottish AUT was asking the general council of the Scottish TUC to take up the campaign for a proper level of financial support for all young people, whether in higher or further education, on youth training schemes or unemployed.

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Whitehall college maximizes output

by David Jobbins

Productivity at the Civil Service College has risen for the third year running, but its principal has warned senior civil servants that the limit has been reached.

The number of student days taught at the college rose by 4 per cent to 75,000 in 1983/84, but the number of students taking part was more than twice as high as in 1980/81.

The increase in output was achieved with fewer teaching staff and resulted from a trend towards shorter courses, largely because civil servants could be less easily spared from their jobs. Both course and student days were 25 per cent higher in 1984/85, the year which marked a turning point after five successive years of decline.

Mr Noel Moore, the college's principal, told the senior civil servants and others on its advisory council that the increase in the quantity training had not led to a decrease in quality.

But he added: "There is nevertheless a point beyond which it ceases to make sense to pursue productivity in a training institution as if it were a factory. An output of 75,000 student days a year represents about the maximum it is right to expect of the college on its present staffing."

Instead the emphasis should be more on quality, relevance and adjustment of the college's work to changing attitudes to civil service training, he said.

Changing attitudes have already become apparent in the pattern of demand for the courses run at Sunning-

dale and London, with the 4 per cent increase over 1982/83 masking significant falls in the numbers taking multi-subject developmental courses.

Increases showed up in accounting training, management studies public administration, and economics, while demand for information technology training remained high.

There was evidence too of greater participation by more senior staff, with assistant secretary grades up 60 per cent, and 50 per cent higher at under secretary level and above.

A few permanent and deputy secretaries have enrolled on courses, and tailor-made courses in information technology for staff at these most senior levels are being run.

The college itself has not been immune from the cuts in civil service establishment. The number of academic staff fell from 91 to 87 in the year while the domestic and catering operation at Sunningdale was privatised, with savings amounting to £20,000 this year and £90,000 in subsequent years. The contract was awarded to Grandmet Compass Services, who have taken on some of the domestic staff formerly employed by the college. According to Mr Moore, the service is running smoothly.

Another effect of the cuts was that the last of the college's full time research staff posts was dropped as from April 1 last year. The result will be less academic research undertaken by the teaching staff and a greater emphasis on activities which promise a direct practical benefit to teaching.

£7m earmarked for inservice training on new exam

The Government is planning to spend nearly £7m over the next two years to support a special programme of inservice teacher training for the new General Certificate of Secondary Education.

Sir Keith Joseph Secretary of state for Education announced the programme in a letter to Sir Wilfred Cockcroft, chairman of the Secondary Examinations Council. He said that teachers must be given help and support so that the new examination may be as good as possible and improvements in the quality of education and teaching maximised.

"The introduction of the GCSE will present a unique opportunity for improving the quality of education in this secondary stage. We need to ensure that the opportunity is seized and that teachers and pupils at the secondary stage benefit as much as possible from the new courses," he said.

Sir Keith said that as far as present teachers are concerned, he believed that there were specific areas which such help would need to be concentrated on.

The first would be to build the GCSE element into existing inservice training; the others would be a special programme of briefing seminars for GCSE teachers, GCSE teacher manuals and videos, and the follow-up and support after the preparatory work has been done and the courses have begun.

Sir Keith added that he recognized that a programme of the kind outlined in this letter would place financial and other burdens on the examining groups, local authorities, schools and colleges.

For this reason, he already agreed with the local authority associations, he planned to extend the scope of the inservice teacher training grants, and between 1985 and 1987 some £7m would be made available to provide suitable materials to cover for subject representatives.

The most obvious move would be to transfer the payment of teachers' salaries to central government. This was the preferred option of Tory MPs when surveyed in 1981.

The trouble with this is that local education authorities would no longer be able to trade off decisions on teacher numbers against other areas of education spending. Rate-borne expenditure could be cut even more if advanced further education was also funded centrally.

The main alternative would be to pay a proportion of local authority educational spending by direct Exchequer grant. We do this already with 50 per cent of police expenditure. If some 75 to 80 per cent of educational spending were paid directly rates could be kept low or even replaced by a poll tax. At a stroke, the Treasury could sweep down the heaviest spenders and the education secretary gain real sway over education. Dismaying thought.

But now an internal Department of the Environment unit, nominally responsible to William Waldegrave, is brooding on local government finance. All ideas will be gratefully received. Back to the melting pot, as a result, is the funding of education.

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Scottish OU role stressed

by Olga Wojtas

Scottish Correspondent

The only way many Scots can take higher and further education courses is through the Open University, the Scottish Tertiary Education Advisory Council has been told.

In its response to STEAC's review of Scottish higher education, the Open University in Scotland has said there sometimes appears to be little awareness of its contribution north of the border.

Since the OU is not purely Scottish, it says, general statistics on Scottish education largely ignore its scope and impact, and STEAC itself has not acknowledged the OU's contribution in its background notes on the present system.

But the OU is Scotland's major provider of part-time first degrees, with around 7,300 students taking undergraduate courses in 1983, says the submission, and it also has a rapidly expanding range of continuing education.

In view of Scotland's geography, and the Government's emphasis on the need for professional and vocational retraining, distance and open learning are vital, says the OU.

It says that it must not be seen as either a competitor to other institutions or an alternative, but as a complementary source of higher education.

"The wheel should not be reinvented," the OU says. "At the moment, our activities and their possible application in other sectors are not systematically recognized, though they could be a major and cost-effective factor in the development of future strategies."

Professor Nigel Grant, of Glasgow University's education department, also urges collaboration with the OU, in a personal submission to STEAC.

The OU and the traditional Scottish ordinary degree are largely constructed on a system of modules and credits, and this system should be extended to enable transfer between institutions, as well as distance learning.

There is no systematic higher educational provision outside the major population centres, Professor Grant argues, but there are, in the Highlands, the Isles and the Borders, distinctive cultures and a long history of demand for higher education which has usually been met by emigration.

Professor Grant also proposes a new body, the Scottish Higher Education Council, which would take over the present functions of the University Grants Committee in relation to the Scottish universities, and of the Scottish Education Department and regional councils in relation to higher education.

But a deputation from Leith, led by

principal Dr Alan Watson, lobbied a group of five Tory MPs at Westminster, chaired by Sir Hector Monro, former junior minister for Scottish Education.

The delegation showed the MPs a video of Leith's work, and urged that it should remain a major centre for nautical education. The MPs have said they will put the college's case.

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British lose out on Esprit cash

by Jon Turney

Science Correspondent

British researchers fared poorly in some areas of the European Commission's information technology programme Esprit, when contracts were topped up at the end of 1984.

Esprit is the EEC's answer to Britain's Alvey programme for advanced computer research, and is funded to the tune of £900m for five years. Officials of the British Alvey directorate are keen to see strong British participation in the European scheme to complement the homegrown effort.

But the directorate has two concerns about British performance so far in winning contracts for joint industrial and academic research, bringing together different European countries. First, although Britain has a reasonable proportion of participants in successful applications, this is not matched by our share of EEC funds.

In addition, two specific areas of Esprit, advanced information processing and software technology are working the British planners. In advanced information processing, roughly the same as the "intelligent knowledge based systems" - or expert systems - strand of Alvey, Britain should do well because our national research strengths lie in closely with the aims of this work. But the UK is doing badly so far in this part of Esprit.

One reason may be the small size of the research community in this area, where large sums of money are chasing relatively few experienced workers.

The first annual report from the Alvey directorate, just published, says virtually all the experts in intelligent knowledge based systems are now involved in Alvey projects. Companies looking for collaborators cannot find any with experience in the field, the report says.

The same problem looks likely to arise in software technology - research to speed up computer programming. Only half the sum originally allocated for software engineering under Esprit was spent in 1984 after a shortage of

high-quality proposals. The rest had to be reallocated to other areas.

The plans for Esprit this year will try and restore the planned level of spending in software technology, but this will depend on better proposals coming through before the March deadline.

Meanwhile, the Alvey directorate are still developing proposals for collaboration outside Europe, notably with Japan, home of the original "fifth generation" computer research programme which triggered much of the new activity elsewhere.

The Japanese are keen to secure cooperation with Britain, but the Alvey report says there are problems to be overcome stemming from the lack of direct links between the main Japanese research centre, ICOT in Tokyo, and Japanese companies.

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Warnock given a life peerage

by David Jobbins

A life peerage for Dame Mary Warnock and knighthoods for the vice-chancellor of London University and the chairman of the Science and Engineering Research Council dominate higher education's share of the New Year Honours.

Dame Mary is one of only four new life peers, and her elevation comes only a year after she became a Dame of the British Empire. The chairman of the committee of inquiry into human fertilization, she has been senior research fellow at St Hugh's College, Oxford since 1976 but this month becomes Mistress of Girton College, Cambridge.

The knighthood for Professor Randolph Quirk, who retires at the end of the academic year as vice-chancellor of London, and for Professor John Kingman, who has chaired the SERC since 1981 are among seven men from the education world so honoured. They include Diarmuid Downs, chairman and managing director of Ricardo Consulting Engineers, who also joined the SERC in 1981 and is chairman of its engineering board, and Robin Nicholson, the Cabinet Office chief scientific adviser, also since 1981.

Professor John Calogian, BP's director of research and chairman of the SERC's science board receives a

CBE, as does Mr Cyril Smith, secretary of the Economic and Social Research Council.

Medical academics are much in evidence, with a knighthood for Professor William Paul of London University's St Mary's Hospital Medical School, and CBEs for three others.

The arts are not forgotten with a CBE for Professor William Mathias, head of the music department at the University College of North Wales, Bangor, and a well-known composer, with many works to his name including an anthem for the Royal Wedding and *The Servants*, an opera with libretto by Iris Murdoch.

Mr Stuart Johnson, director of education for Leeds and chairman of the University Grants Committee continuing education committee, and Professor John Cannon, pro-vice-chancellor of Newcastle University and chairman of the UGC's arts subcommittee also receive CBEs.

An OBE goes to Nick Whitehead, manager of the British athletics teams at the Moscow and Los Angeles Olympics. Dr Whitehead is director of the National Coaching Foundation, based at Leeds Polytechnic's Beckett Park campus and a former lecturer at the city's Carnegie School of Physical Education.



Dame Mary Warnock: life peerage



Professor Randolph Quirk: knighthood



Professor John Kingman: knighthood



Dr Nick Whitehead: OBE

Composer sounds warning

by Karen Gold

The whole structure of music education is threatened and British tertiary education is being bled to death, according to one of Britain's foremost composers, Mr Peter Maxwell Davies.

Mr Maxwell Davies, opening the North of England education conference in Chester of which he is this year's president, launched a furious attack on cuts in British music education which, he said, until 1975 had been the best in the world.

Cuts in music education in schools would undermine the quality of county and national youth orchestras, which would in turn undermine the music colleges and professional orchestras, he said.

In some counties school music had been ruthlessly cut altogether. "We have not yet felt this at the level of the national symphony orchestras—but we will," he said.

"I should emphasize that it is not only the professional orchestras who will suffer. We are undermining not only the possibilities of our national orchestras' existence, but the possibility of our enjoying music as listeners in a real participative sense at all."

The symptoms spread wider than music education, he said. "Not only are we not investing in the nation's future in primary and secondary education, but British tertiary education is being bled to death."

"It is small wonder that so many school-leavers are hopelessly cynical and potentially destructive of the whole fabric of society, and that so many of the best who still achieve tertiary education leave the country, taking their skills with them."

In a period of high unemployment it was vital that music centres for adults to participate in music for a nominal fee continued to be established.

"A practical interest in music is going to brighten peoples' lives," he said. "I see musical activity as a necessary part of peoples' lives, not as a pastime or as something to be endowed by philanthropic charity."

"If one were totally cynical and regarded music education for instance only in the light of training for the musical profession one could perhaps understand the Government's unwillingness to underwrite it. Such cuts could be seen to bring educational policy into line with arts policy, as manifest by the risible sums available through the Arts Council."

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The Venerable Archbishop Frederick Cockerill, Southern Education and Library Board, Northern Ireland; Alexander Inglis, lately principal, Telford College of Further Education; Ian Jeakin, principal, Camberwell School of Arts and Crafts; Professor William Kirk, services to education in Northern Ireland.

Professor George Lamming, head of department of physiology and environmental science, Nottingham University; Donald Mackenzie, head, South Survey, England and Wales; William Maurice Malcolm, lately clerk of Royal Society Council; David John Morton, lecturer in education, Nottingham University.

Elizabeth Raybould, services to nursing education; Philip Readeck, chief scientist, Lucas Industries; John Ribbitt, reader in plant pathology, botany school, University of Cambridge; Michael Vincent Salter, inspector, DES; Mervyn Philp, Smith, establishment officer, Natural Environment Research Council; Edwin Stearn, principal, Brookly Agricultural College and chief agricultural education officer for Leicestershire.

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Law diploma students in grants wrangle

by Olga Wojtas
Scottish Correspondent

Law students are in the alarming position of not knowing whether they will get a grant for the postgraduate diploma in legal practice, according to Glasgow University's law faculty.

The one-year diploma, which is a prerequisite for intending solicitors and advocates, was introduced in 1980, but since then the Scottish Education Department has imposed quotas on postgraduate courses and a moratorium on the law diploma seems about to run out.

Mr Gerry Maher, of Glasgow's law faculty, writing in the university's bulletin, says one cause of the problem is the difference of views between the legal profession and the SED.

The profession believes that

although the diploma is practical rather than academic, it should be taught in the universities, who teach the vast majority of intending lawyers at undergraduate level.

But the SED, "which has shown increasing aversion in recent years to paying grants for purely academic courses, is very far from keen to subsidize a profession which (unlike that of teachers and doctors) is dedicated more towards private profit than public service," Mr Maher says.

"Whatever the rights and wrongs of this dispute, it is intolerable that the future careers of many of our students are caught up in it."

Professor Philip Love, of Aberdeen University's conveyancing department, who was closely involved with setting up the diploma, said he be-

lieved the imposition of quotas was very close.

When the SED began to impose postgraduate quotas, the Law Society of Scotland had said this was unfair to students who had already embarked on a law degree. The SED had decided that students who began their degree before 1982/83 would be guaranteed a diploma grant.

While students taking a four-year honours degree were still covered, the first batch of students starting a three-year ordinary degree after the time limit would soon be graduating.

"The battle over the principle of the quota system has been lost," said Professor Love. "It's the amount which can now be discussed. The SED, to be fair, has been very helpful, and will probably give us a quota which

they believe will cope with the Scottish candidates, but I still think there will be a shortfall."

It was not yet known whether the SED would allocate a number of awards to each faculty, or leave a total figure to be divided by the Diploma Central Liaison Committee, which includes representatives of the universities and the legal profession, said Professor Love.

"The worry is that people who are denied grants could be those least able to finance the diploma year. In awarding places, we must go on academic criteria, not financial ones. I believe people who don't get awards will get in touch with banks for loans."

An SED spokesman said talks were continuing with the Law Society on introducing a quota.

NERC grant system to be changed

by Jon Turney
Science Correspondent

The Natural Environment Research Council has decided to abolish studentships exclusively tied to its research institutes, following a review of postgraduate training.

This is the main change accepted by the council with a report from a review group chaired by Professor Sam Berry, which examined allocation of postgraduate studentships by the NERC. The studentships formerly allocated to institutes will become part of the existing Cooperative Awards in the Sciences of the Environment (CASE) scheme, under which university departments, council institutes and industry collaborate.

The committee found that, in general, the NERC allocation system works well, but not many students believe this. Their report identifies as misconceptions the commonly held views that the council makes awards to projects, not students, and disregards students with their own ideas; that particular supervisors or university departments are favoured by award committees.

The report rejects all these criticisms as unfounded and calls for more publicity about how the NERC system works in practice. It also finds no evidence for the common suspicion that members of award committees are more successful at securing grants than they should be.

The report says if this view gained wider currency it could be damaging to the whole research council system, but it is hard to judge the effect of committee membership. As members are drawn from the best research workers, they should do better than average in any event.

A council study looked at success rates among committee members before, during and after periods of membership between 1977 and 1982, compared with non-committee members, and found no conclusive evidence of inequality, according to the report. But the committee says the question is so important that the figures should be carefully monitored.



On target: Physicists at the Rutherford Appleton laboratory caught at the moment the first directed particle beam hit the target for the massive new Spallation Neutron Source. An accelerated proton beam strikes the uranium target to yield neutrons, which will be used by university scientists for research in physics, chemistry and biology. Dr Geoff Manning, the laboratory director, second from the right, cheers the successful commissioning of the £50m machine.

Art diploma hopes are too high, says HMI

Schools are failing to understand the nature of general art and design diplomas as introductions to the subject, in spite of college efforts to explain them, according to a report by HMI inspectors.

The two-year DATEC diploma courses for 16-year-olds usually with three O levels or more are intended to give opportunities for future study in a range of art and design specialisms and at a range of levels, from higher diploma to degree.

But some schools are emphasizing entry to degree courses from the DATEC general diploma, which "might well be an overoptimistic aspiration for some students," the report says. This is in spite of the colleges making clear the range of options.

The report is a survey of 21 of the colleges running the courses out of the

25 running such courses in 1983. Of 733 students on the general diploma courses, 37.4 per cent went on to do art and design degrees, 20.7 per cent to higher diplomas, and the rest to employment, other courses or unknown destinations.

In 60 per cent of the colleges visited, students' work was generally good, the report says. In 30 per cent the work was of mixed quality, while in two colleges "much of the work seen was of a disappointing standard." "The whole spectrum of quality of drawing was observed - from outstanding to poor," the report adds.

In general the standard of specialist accommodation and facilities on the courses is very satisfactory, but lecture and tutorial rooms are less satisfactory. Most colleges provided good or adequate resources, though more technicians were needed in some cases.

Applications far outnumbered places for some colleges: one reported over 400 applications for 70 available places. Often colleges had to offer more places than they had because of the drop-out rate of entrants who failed O levels, although some colleges had a high proportion of students with fewer than three O levels, 64 per cent in one case. Course numbers varied from 15 to 82 in the second year, when some courses run parallel with an art foundation course.

Two colleges had weaknesses in their tutorial arrangements, with 40 students allocated to one tutor in one, and an entirely ad hoc system in the other, with consequent unsatisfactory courses chosen by students when they leave. Otherwise tutoring arrangements were generally favourable, the report says.

A level grading system under review

by David Jobbins

The points system widely used to translate A level grades into an indicator for university and college entrance may be investigated by a Secondary Examinations Council working party.

Devised by the Universities Central Council on Admissions, the system allocates a value to A level grades and the totals form a factor in the process of offering places.

The working party is to see whether it can give advice on the use of the system under which, as its first report makes clear, a candidate with A and E scores gets the same number of points as another with three Cs.

Methods by which candidates near dividing lines are assigned grades are also to be examined to decide whether or not recommendations on the procedures used should be made or not.

Limited changes in the present grading system are proposed by the working party, which however admits that

they can do little to meet anxieties caused by the increasingly tough use made of it by the universities.

Its chairman, Professor Jack Allanson, accepted that the steady rise in standards of performance was due to an increase in the number of students with creditable grades and a decrease in the number of places available.

"The working party draws attention to the fact that no alteration to the grading system can change either of these numbers and that it is therefore unlikely that the number of worried or aggrieved students and parents will be significantly reduced."

Under its proposal, five pass grades would be retained but would be related to mark ranges rather than defined in terms of percentile ranges of candidates.

To maintain continuity, two fixed points, one at the bottom of the E grade, would be used. The span of the five pass grades would then be calculated

by dividing the difference by four.

The old O grade - the compensatory O level - would be replaced by a new N classification which would distinguish narrow failures from ungraded candidates.

An increase in the number of grades was ruled out mainly to ease transitional problems but partly because it recognized more radical changes would be needed in the longer term.

The working party concludes there was no advantage to taking small steps which might later be regarded as trivial or in the wrong direction. But Professor Allanson added: "The changes we recommend are well worth making because they would remove the existing inequalities in the ranges of marks which form the intervals between grades, increase the mark range across grade C (criticized by the Joint Matriculation Board for its narrowness) and provide a common procedure for all boards."

news in brief

Welsh stud up for sale

The only stud farm in the university sector is to be sold because of continuing financial difficulties faced by University College, Aberystwyth. The Llanarth Stud of Welsh cobs was bequeathed to the college in the 1970s. Its original home was sold off in 1983, and it moved to the college's farm at Penglais.

Now the college has decided to dispose of the stud, comprising one stallion, seven mares and a number of younger animals. It said that the cost of running the stud was substantial and that hoped-for outside support had failed to materialize. Every effort will be made to sell it as one lot.

Panasonic boom

The Japanese electronics company Panasonic has set up a £500,000 trust for further education and training of engineers. The trust, set up to mark the tenth anniversary of the company's British factory in Cardiff, will be administered by the Fellowship of Engineering. The money will be used to support engineers on advanced courses at institutions collaborating with companies, probably in Wales.

Late rush

The final figures for applications to university next year show a small increase on the previous year. 161,787 students have applied, which is 637 or 0.39 per cent higher than last year. The Universities Central Council on Admissions said that a lot of late runners had ensured the figures kept well up. As late as November applications had been 4 per cent down.

Social change

A single social work qualification involving a longer period of study and supervised practice is being proposed by the Central Council for Education and Training in Social Work.

A consultation document to be issued this month will set out plans to merge the two existing qualifications, the college-based full time Certificate of Qualification in Social Work, and the employment-based part time Certificate in Social Service.

Engineering first

Paisley College of Technology is to launch a new part-time degree course in civil engineering, the first of its kind in Scotland. The four-year course, whose first intake will be in April, is aimed at engineers who already hold a higher national certificate, but cannot study full time for a degree.

Economist for UGC

Professor Richard Layard, professor of economics and head of the Centre for Labour Economics at the London School of Economics, has been appointed to the University Grants Committee, from January 1, 1985 to August, 1988.

Hart to heart

Senator Gary Hart, contender for the 1984 US Democratic presidential nomination, is to give a public lecture at Edinburgh University on January 12, entitled "American and European living together? Future defence strategy". The lecture will be chaired by Edinburgh's rector, Liberal leader Mr David Steel.

Parking space

Southampton University has been granted planning permission for the first three buildings on a new 20-acre science park. The first phase of the development, known as the Chilton Research Centre, will cost over £2m, and should be finished in a year's time.

Councils split over exams

The Scottish Business and Technical Education Councils are split over the prospects of a single examining body for school and further education.

The two bodies are shortly to merge into the Scottish Vocational Education Council, and the government has proposed that there might be a further merger between Scotvec and the Scottish Examination Board.

Last month, Scotvec said it opposed such a move, but Scotvec says it supports a single body responsible for curriculum, assessment and certification from the third year of secondary school, including non-advanced further education.

Scotvec argued that proposals for a further merger were premature, and that Scotvec should operate for a few years before any consideration of a single examining body.

Scotvec agrees that "an early decision is not essential", and suggests that a Scotvec liaison group should be set up to consider the issue. There are significant overlaps between the two bodies, and much could be done through liaison to minimize these, it says.

However, the provision of a unified system would be to the advantage of all concerned.

But, although it backs a single examining body, Scotvec has reservations about a single certificate. "It is an attractive proposition, the council concedes, but may not be the best response by users and hence is not considered to be essential."

The Scottish Further and Higher Education Association is also opposing a further merger.

V-Cs urge Sir Keith to repair damage to student support

The need for the Government to repair the damage done to the student support scheme, and establish a rational policy for higher education, were themes reiterated in speeches made in the universities before Christmas.

Dr Albert Sloman, vice-chancellor of Essex University, told his court there was a need for a radical and comprehensive review of arrangements for student support, to bring order to all the different schemes in 16 plus education.

But changes had to meet two criteria: "far from restricting access to higher and further

overseas news

Breaking into the clandestine world of higher learning

from David Dickson

PARIS French scientists have had their Christmas holidays enlivened by two stories that might have come directly out of the pages of a detective novel.

The first concerned the case of a young computer enthusiast who, deciding that he preferred the company of machines more than people, hid himself away for several months in the attic of a large university research laboratory, emerging only at night to indulge in his fantasies on the laboratory's powerful computers.

The research workers in the laboratory used to arrive in the mornings to find strange messages left on their computer display screens — and also that food and drink had been steadily disappearing from their communal kitchen facilities.

But few paid any serious attention, assuming that the causes of both had been other members of the staff. It was only when the losses had been going on for some time that the police were finally called in and the hideaway was discovered.

The second story involved the case of two amateur scientists who were arrested by police in Nancy on suspicion of setting up a clandestine biology laboratory using apparatus stolen from a number of local schools and university research institutes.

Over the past six months, according to the police, a passion for biology had led engineer Patrick Baumann and his associate Alain Fetz, an administrative clerk in a computer research centre, into a carefully planned life of crime during which they managed to collect scientific equipment ranging from test tubes to microcomputers worth almost £100,000.

The first thefts appeared to have been carried out almost at random at a number of secondary schools and university laboratories. Then the two were said to have become more methodical in their activities, working out what equipment was needed for their laboratory, and where they were most likely to be able to get hold of it.

Among the establishments they are now accused of breaking into are a rabies research centre, a university institute for computer mathematics, another university institute for economic and social research, and even the local office of the French national railways. Equipment taken included a video recorder, a printer for the personal computer, and a number of microscopes.

The two were, apparently, still not happy with their scientific apparatus. There were still some relatively rare bits of equipment missing, and these proved to be their downfall.

Ten days before Christmas, the two were caught by police in the early hours of the morning as they were trying to break into an agricultural college in the suburbs of Nancy. A short time later, the police broke down the door of the home laboratory, and discovered the equipment that had been disappearing steadily from the local research institutions.

All the equipment was found to be in perfect working order. Indeed the fact that it had not been offered for re-sale explained why those investigating the initial thefts had been getting nowhere in their inquiries.

And, as the French press has been pointing out, even if the two would-be research workers failed to obtain the scientific recognition they had been seeking, they may have obtained a little consolation from the fact that the policeman who eventually arrested them was called Inspector Galileo.

Gloomy nuclear forecast

from Deborah Kasoff

WASHINGTON The National Academy of Sciences, America's most prestigious scientific body, has told the government that despite great uncertainties, there is a clear possibility that a nuclear war could generate enough smoke and dust to blot out the sun and drastically lower temperatures in the northern hemisphere.

The report states that a nuclear exchange involving only half the world's arsenal, could put enough dust and smoke into the atmosphere to block the sun for six to 20 weeks with the resulting loss of sunlight causing temperatures throughout most of North America and Eurasia to fall by about 10 to 25 degrees centigrade.

The NAS report, prepared by a committee of 18 specialists in various areas of science from universities, government nuclear weapons laboratories and private industry, is the first major assessment for the federal government of the nuclear winter theory.

Although it adds little to the nuclear-winter scenario that individual scientists have been describing for more than a year, it strengthens the theory's technical foundation and gives it the scientific establishment's most visible stamp of authority.

"This legitimizes the problem," said Mr. Richard Turco, a member of the committee and an atmospheric chemist at R. and D. Associates, a private consulting firm in Marina del Rey, California. "It shows that it isn't some wild idea of a bunch of left-wing, liberal college professors. This was a

balanced panel and we're saying there really is cause for concern."

Mr. Turco, astronomer Carl Sagan of Cornell University, and a handful of other researchers have independently elaborated on the nuclear winter theory, first suggested three years ago by Paul Crutzen, a Dutch meteorologist, predicting that the combined effects of low temperatures, radiation, disease and starvation might all but extinguish life on earth.

Dr. George Carrier, an applied scientist at Harvard University and chairman of the committee, said that the panel's findings were quite consistent with those original studies.

The effects of nuclear exchange elaborated in the report were calculated only for a specific hypothetical war and did not imply any threshold, according to Dr. Carrier, who added that there was no way to estimate how small a nuclear war would have to be to avoid nuclear winter.

The committee's hypothetical war involved a nuclear exchange in which two sides exploded 12,500 strategic weapons with a yield of 6,000 megatons and an equal number of smaller tactical weapons with a total yield of 500 megatons.

The weapons would be used against known military targets and against the 1,000 most populous cities in NATO and Warsaw Pact countries.

According to the report, the model nuclear exchange would have three immediate atmospheric consequences: dust and smoke would be injected into the atmosphere; large amounts of dust from the explosion would be lifted high into

the atmosphere; large-scale urban and forest fires would be started from the intense release of energy in the air burst explosions; and large quantities of undesirable chemicals, such as nitrogen oxides, could be released.

Ground bursts could propel an estimated 15 million tons of microscopic dust particles into the stratosphere where it could remain aloft for more than a year, and both urban and forest fires could send anywhere from 20 million metric tons to 650 million metric tons of smoke into the lower atmosphere, according to the report.

The vast clouds of dust and smoke would spread around the earth within days, blocking more than 99 per cent of the sun's light and causing immediate drops in temperatures which could become catastrophic.

In addition, the large amounts of nitrogen oxides that would be produced could cause "substantial" reductions in the layer of stratospheric ozone that protects the earth's surface from harmful ultraviolet radiation, and the large amounts of soot and dust in the atmosphere could produce other climate effects such as persistent ground fogs, decreases in precipitation over the interiors of continents, increases in storm activity over coastal regions, and changes in global wind patterns.

The committee's report, which was also endorsed by the American Institute of Biological Sciences, stresses the uncertainties involved in the hypothetical study and recommends that a major research effort by the federal government be given high priority.



Johann Sebastian Bach

Early Bach preludes discovered

A Harvard professor has discovered a group of 33 previously unknown compositions by Johann Sebastian Bach in a collection of hundreds of eighteenth-century manuscripts at Yale University.

Mr. Christoph Wolff, a Bach authority and chairman of Harvard University's music department, found the 33 organ chorale preludes in the Yale library while he was conducting research for a three-volume compendium of Bach's organ works.

The pieces were composed between 1700 and 1707 or 1708, when Bach was in his late teens or early twenties, according to Mr. Wolff, who confirmed the attribution of the pieces primarily on internal, stylistic evidence.

Mr. Wolff said these early Bach pieces were in "basically the same format as similar works by people of the older generation in the same collection. But they stand out in that they focus on bold features, harmonic daring and detailed polyphonic elaboration."

The compositions, which are not in Bach's hand, appear in a bound manuscript volume containing a total of 83 works by various composers, including other members of the Bach family.

"The most important composers in the book, besides J. S. Bach, are his uncles Johann Michael and Johann Christoph the elder, who died in 1703," Mr. Wolff said.

The manuscript originally belonged to Johann Christian Heinrich Rinck, an organist who was a student of Johann Christian Kittel, Bach's last organ student.

The Yale University Press plans to publish the newly discovered works in facsimile this year, the 300th anniversary of Bach's birth, and Mr. Wolff and a colleague in Leipzig will include a scholarly edition in the complete, critical collection of Bach's music, which they are currently preparing.

Women still held back down under

from Geoff Maslen

MELBOURNE

Women have to meet higher standards than men to gain promotion in Australian universities, according to a study presented to an international conference on women in education held in Melbourne.

Over and above other factors such as overseas training, qualifications and number of publications, the likelihood of early promotion in universities depended on whether the academic was a man or a woman.

Professor Ray Over and Dr Beryl McKean, psychologists at La Trobe University, told the conference that determined action was needed to improve the representation of women on university staff.

They pointed out that although female students now made up just under half of all university students, only 16 per cent of full-time academic posts were held by women.

For full-time lecturers and above, the figure was less than 11 per cent and even with optimistic projections this was unlikely to increase to more than 15 per cent over the next 10 years.

The startling under-representation of women was shown by the fact that in Australian dental schools, for example, where women made up more than a quarter of students, there were only three women among 103 academic staff at lecturer level and above. Similarly, women accounted for 40 per cent of first year students in Australian faculties of medicine, but constituted only 4 per cent of academics with a medical qualification.

They said there were several reasons why career prospects for women had deteriorated:

- Few new jobs were being created;
- The rate of turnover of academics with tenure was low — only 4 per cent of all appointments became vacant in 1983;
- The proportion of academics close to retirement was low;
- Promotion was now highly competitive;
- It still seemed to be the case that academics who completed their undergraduate training outside Australia gained about a third of the positions filled by Australian universities.

In their paper, Professor Over and Dr McKean suggested that the only way female academics could improve their position was through a lessening of tenure rights, so allowing them to compete for jobs with older, mostly male, colleagues.

"Any process that frees jobs would improve the career prospects of recent graduates, among whom there is a higher proportion of women than in the past," they said. "Perhaps it would be equitable if women (and men) of the current generation increased their representation at the expense of graduates, mostly men, of earlier generations."

In a related paper, Dr Robin Burns, a senior lecturer in education at La Trobe, presented evidence showing that despite a marked increase in the number of girls completing their higher school certificate, fewer than might have been expected were enrolling in universities.

overseas news

French student numbers increase

from David Dickson

PARIS The number of students attending university in France for the first time has increased this year by 3 per cent over last year's figure, according to M Roger-Gérard Schwartzberg, secretary of state for universities in the ministry of national education.

According to M Schwartzberg, one third of these new students have enrolled in the new professionally oriented courses which have begun in universities as a result of the educational reforms introduced by the government at the beginning of the year.

The apparent success of the reforms has been reflected in the fact that in those universities which have made a particular effort to introduce the new courses, including universities in the cities of Lille, Montpellier and Nantes, the enrolment rate has been considerably higher than the average.

These courses lead to special qualifications at the end of the second year which have been created to try to avoid the problems of the massive number of students who traditionally leave with no qualifications before ending their four year studies. There has been a particularly strong demand for places in scientific subjects and economics, accompanied by a decline in law and in the humanities — two trends which the government will welcome.

In a report to the council of ministers last week, M Schwartzberg said that total number of students attending French universities had now reached 995,000. This represents an increase of almost 14 per cent over the total five years ago. The new first cycle courses have been introduced in 60 out of France's 68 universities, he said. At the level of second-cycle courses, covering the third and fourth years of

the university course, several new subjects have been introduced in the fields such as computer science and related studies. In addition, 34 universities had introduced third cycle courses leading to a postgraduate qualification — the diploma of advanced studies — in these areas.

M Schwartzberg said the government's efforts to increase the opportunity for students from less wealthy families to attend university had been reflected in a growth of 17 per cent in the amount of money paid in student grants, which would therefore have risen by 50 per cent since 1980, the year before the present socialist government came to power. The number of students receiving such grants in the current academic year, he said, was approximately 150,000 — an increase of 20 per cent over the same period.

M Schwartzberg also claimed that the government's success in convincing university teachers and research workers of the need to increase their links with the industrial world had resulted in a doubling of the number of patents applied for by university research groups between 1982 and 1984.

He emphasized that the new budget for 1985 would be specifically aimed at encouraging greater movement in this direction, particularly by the fact that many of the 800 new posts being established in universities would be in technical and professional fields.

M Schwartzberg's optimism has not been shared by everyone, however. One of the principal trade unions representing university teaching staff, the National Union for Higher Education, has complained that in many universities the new courses have been introduced before the university has been able to reach agreement on the extra funds which it will receive from the ministry.

Fake degree charges brought

from P. E. Burke

OREGON An investigation conducted nationwide over the last four years by the Federal Bureau of Investigation has resulted in an Oregon man being charged with issuing counterfeit degrees and diplomas. Some 300 universities are said to be involved. This could lead to the exposure of some 2,500 persons who may be practising law, medicine or holding other jobs gained through false diplomas.

The case is interesting because Dennis Everett Gunter, 38, is the first person accused of selling false degrees from actual universities and colleges — earlier cases in the false-degree market have involved "degrees" from phoney colleges.

According to the indictment, Mr. Gunter charged his clients \$40 to \$60 for counterfeit degrees from Harvard, Pennsylvania State, University of North Carolina, North Carolina State, the University of Michigan, Michigan State University and the University of Colorado. These sales were made in July and August of this year. However, investigators believe that Mr. Gunter sold diplomas to approximately 2,500 persons between December 1982 and June 1984. He advertised his wares in such magazines as *Psychology Today*, *Science Digest* and *Soldier of Fortune* (a trade sheet for Americans who are mercenaries soldiers throughout the world).

The copy for his advertisements read: "Has your diploma been lost or damaged? Most schools available. Beautiful exciting reproductions, including seals and coloring. All inquiries confidential." According to the investigators, there was a "more than 90 per cent fraud rate."

The actual case is being brought on the forgery of some 15 degree diplomas involving the University of North Carolina. Of this number, only two persons actually attended the university and, according to the registrar, one failed to graduate, while the other had his diploma withheld.

US Unesco decision criticized

from Deborah Kasoff

WASHINGTON The withdrawal of the United States from Unesco has worried a number of American scientists and scholars who fear the decision will remove the US from the sphere of influence in many science and education programmes.

The Reagan administration, after a year's notice, walked out of Unesco at the end of 1984, alleging mismanagement, over-spending and politicization — and accusing the organization of tilting towards the communist bloc and of being against free enterprise and freedom of the press.

Dr Elise Boulding, professor of sociology at Dartmouth College and one of the founders of the International Peace Research Association acknowledges that political rhetoric exists in Unesco, but that most of the organization's work involves research and the sharing of data.

"You can't do science in any one country in the modern era," she said. "There are thousands of experts in each discipline across the globe. The magnitude of the problem is such that scientists have to rely on an internal infrastructure — Unesco creates an infrastructure of research laboratories, training centres, newsletters, etc."

Mr Thomas Galvin, a member of the US National Commission for Unesco and dean of the University of Pittsburgh's school of library and information sciences, feels that few if any alternatives to Unesco exist in some areas.

"I think it is unwise to withdraw, because I don't think that is an effective way to achieve reform, and it places in jeopardy some scholarly, educational and commercial interests in the US," he said.

Mr John De Mars, director of International Relations for the National Education Association, feels the withdrawal "may result in a kind of debilitation of the spirit of the organization."

The NEA participates in international teacher training and literacy programmes sponsored by the World Confederation of Organizations of the Teaching Profession and Mr De Mars fears the loss of US funding may jeopardize Unesco assistance to confederation projects.

The US contribution of \$47m a year accounts for about a quarter of Unesco's budget, with approximately \$18m of that going to education activities, \$14m to science, and the remainder to cultural and other international programmes.

Prior to the US withdrawal several studies, including reports by the National Research Council, the National Science Foundation, the US National Commission for Unesco and the Committee on Foreign Affairs, acknowledged many of the administration's criticisms of Unesco, but argued for the advantages of staying within the organization.

The National Academy of Sciences' report to the US State Department concluded that "no viable alternative" to Unesco science programmes and expressed concern that by pulling out, the US would forfeit the right to help govern multilateral scientific programmes.

Council defended by Turkish president

from Bernard Kennedy

ANKARA

President Evren of Turkey has made a firm defence of the much-criticized higher education council he helped establish as military leader three years ago. Speaking at the official opening of a new private university in Ankara, the president also came out strongly in favour of private education.

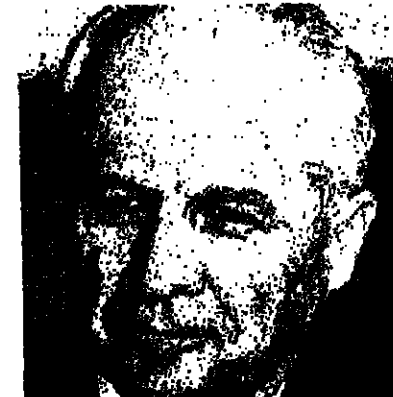
All of this must have been music to the ears of Professor Ihsan Dogramaci, who is both head of the HEC and the brains behind the private university venture.

Over the last three years, the powerful council has won widespread disapproval among university teaching staff and students, who accuse it of centralizing all appointments and decision-making, destroying the independence of the universities and dismissing or transferring its academic opponents.

However, President Evren promised to put all his weight behind the council and to oppose all its critics. "The HEC is much admired abroad," he contended, "but we have been unable to sell it to our own sons and daughters."

On private education, President Evren noted that private schools he had visited himself were often of a much better quality than state schools. He hoped that private universities would be able to make up for some of the shortcomings of public higher education and to provide places for some of the young people currently unable to get into university.

Bilkent, the new, private university, is the first institution of its kind to be set up under the 1982 constitution, which specifically provides for the establishment of higher educational



President Evren: opposes critics

institutions by non-profit-making foundations.

A rash of small private universities broke out at the beginning of the 1970s, but came to an abrupt end at the hands of the constitutional court, working on the basis of the 1961 constitution, then in force.

Bilkent will not actually start operating for another two years; the opening ceremony merely marked the completion of its future administration block. It is scheduled to be catering for 5,000 students by the end of the decade, mostly studying technical subjects related to the interests of the 11 private companies subscribing to the Bilkent Foundation.

According to education minister M Vehbi Dincerler, private universities are now likely to become an important factor in the Turkish education system. This remains to be seen, but the Bilkent Foundation is reported to be planning two more new universities, in the Aegean region.

Dogramaci accused of plan to set up spy network

The Turkish higher education council seems set to turn the screws on university students and teaching staff alike, according to the national left-of-centre daily *Cumhuriyet*.

The paper has published extracts from a circular allegedly signed by professor Ihsan Dogramaci, the head of the all-powerful council, which contains plans for the establishment of a comprehensive spy network within the university system.

Under the proposals, files would be kept on all university students and teaching staff, the dean of every faculty in the country would be appointed to oversee this work, and all information gained would be sent to the HEC for discussion at rectors' meetings.

Special attention would be paid to individuals known to have been involved in political activities in the past. In addition, lecturers and students would be given special identity cards to display on their clothing, and nobody would be allowed on campus without such a card.

Students would be kept "constantly under observation" in their hostels and canteens, and their free-time activities would be monitored.

Representatives of the council were not available to comment on the report.

This is not the first time that the higher education council has been accused of seeking to introduce a comprehensive information network.

On the last occasion, it was even announced that the idea had been abandoned. But the repeated allegations only lend weight to the view that the extreme right, with which many rectors are believed to have affiliations, is infiltrating and taking over the universities from the top.

Certainly, the respect of the higher education council, which is responsible directly to the republic for the democratic process, is open to question. Only three days before *Cumhuriyet's* revelations, the council had been attacked in parliament by government and opposition MPs alike, with one member accusing Professor Dogramaci of not knowing the difference between a university and a barracks.

Already, students and teaching staff in Turkey's universities are under intense pressure. Students in the part in food boycotts have been singled out and questioned. Nineteen students were detained by the Ankara martial law authorities earlier this month for their part in organizing a petition calling for a revision of meal-times in their canteen.

Engineering faculty 'closed'

Unconfirmed reports from Iran claim that the engineering faculty at Kabul University has been closed following a mass defection of students to the anti-government Mojahedin.

The allegations have been strongly repudiated by a "scientific conference" of Kabul University lecturers, organized in connexion with the fifth anniversary of the arrival of the Soviet "liberated intervention forces" on December 27 1979. The closing statement of the conference accused "the imperialist forces, who are the enemies of fundamental transformation in our country" of launching a "systematic war of fabrication and lying" against the Afghan government and people.

One of the "lies" which the conference condemned was the Iranian claim that the pharmacy faculty of Kabul University had "somehow been closed". On the contrary, said the statement, the pharmacy faculty had taken "resolute measures" and "strongly rejected" such counter-revolutionary propaganda.

The statement, it stated, is "infringing its activities" for the future prosperity and blossoming of the revolutionary land of Afghanistan, with all seriousness and vitality.

The Iranian sources, however, had not mentioned the pharmacy faculty at all. It was the engineering students, they said, who had defected to the "counter-revolutionary" forces, and the Kabul regime had "indulgently" ignored

Students enlisted in fight against killer mosquito

from Patricia Smith

HAVANA Medical students joined health and community workers in a house-to-house inspection of Havana in December in search of a particularly virulent breed of mosquito.

More than 20,000 students from the Higher Institute of Medical Sciences and the Health Polytechnic took part in the check as part of a campaign on hygiene and health education.

They visited homes and workplaces looking in bathrooms and kitchens for stagnant water where the *Aedes negypti* mosquito which is a carrier for haemorrhagic dengue and other viruses might breed.

An outbreak of dengue fever in 1981 claimed 158 lives, including 101 children. The disease, previously unknown in Cuba, spread from three

points carried by the mosquitoes. A total of 344,203 cases were reported. The Cubans charged the United States Central Intelligence Agency with introducing the plague. A member of the anti-Cuban US-based Omega Seven group has since confessed to having worked on biological warfare against the island.

The severity of the disease led to quick community action. Teams were formed to go through buildings immediately and in the longer term some health workers were transferred to routine inspections.

They are expected to make public reports on what they find as well as give talks on health and hygiene. The scheme follows the latest policy guidelines for bringing all health workers into the home, including the plan for one doctor for every 120 families.

Opposition voice silenced

by Geoffrey Parkins

The Malaysian government has turned down requests from opposition party leaders to be allowed to lecture on political orientation courses for government-sponsored students returning from overseas.

Datuk Khaili Yakob, minister in the prime minister's department, said the opposition would confuse the students.

Many feel that it is only right that mature students should be presented with a balanced picture and that such

students, having completed their degrees, should be fully capable of coming to their own conclusions when presented with issues and differing views.

But, the government's position on the matter is that the obligations of government-sponsored students should be to the government, and not one else, and thus the courses are seen to be fulfilling their prime purpose of briefing students on the government's policies and bringing them up to date on developments.

Students living in 'wretched squalor', claims reporter

Students in Frunze, capital of Kirgizia in the USSR who only recently were protesting against the lack of tea in college canteens are having to live in conditions of "wretched squalor" according to the local daily *Sovetskaya Kirgizia*.

Conditions, according to reporter E. Taranova, are particularly bad in the Frunze Agricultural Institute, where the drains and central heating are permanently out of order, mattresses do not fit the beds, and some rooms lack doors, windows, or even window frames. The gas stoves in the students' pantries, she says, are all out of order, and the problem of repairs "is almost insoluble". The local sanitary inspector, Mr Buratova, is reported to be particularly concerned that students have to wash at standpipes in the yard.

Repeated complaints to the director for administration, Dr E. G. Kilmov, have been to no avail. The institute authorities would like to blame the situation on the students. They allege that, in one room, "a heap of rotting refuse" was found, illustrating the "low conscientiousness" of the students, occupying it.

But student "conscientiousness", Ms Taranova pointed out to her readers, does not develop by itself. They need to be encouraged and be set a good example. Even if the institute authorities mean to imply that misdeeds and electrical wires hanging down from the ceilings are the result of student vandalism, it is difficult to see how the students can be responsible for damp patches on the walls.

Moreover, she notes, the bulletin board opposite the janitor's box, which is meant to display photographs of the Students' Council and a list of rooms kept in model condition is "yellowed by

time". This year, there is no students' council nor a competition for model rooms — the display is left over from a happier past.

Ms Taranova gives no explanation of why there is no students' council — an important feature of Soviet academic life, which would normally be responsible for complaints about hostel conditions. Possibly, it proved impossible to find anyone willing to serve, if potential candidates knew in advance that they would go unheeded.

Complaints from Ms Buratova's sanitary department, however, have had one result. A flurry of shifting responsibility has broken out in the institute. The party committee accuses the Komsomol (Young Communist League) of inefficiency and sluggishness. The educational department complains that hostel authorities pay little attention to the upbringing of the

students under their care. The hostel administration complains that the lecturers should be helping to arouse the proper attitude in the students. The cleaning staff maintain it is the fault of the plumbers, who, according to Ms Taranova, "do nobody knows what or more precisely — It is known what they do but it is not what they ought to be doing!"

Ms Taranova's article concludes with a formal exhortation to the Komsomol to increase its activities in the hostel. This, however, only shifts the responsibility from the institute authorities.

The problem of the Frunze Agricultural Institute is unlikely to be an isolated one. A Soviet press campaign against widespread abuses normally begins with the castigation of some offender as an example to others.

WORLDWIDE

Back to business

Neil MacDonald visits the National University of El Salvador

Visiting the campus of the National University of El Salvador (UES) is an eerie experience. Returned to the university authorities after a four-year occupation by the national guard, it has the atmosphere of the aftermath of a disaster. Tangled wreckage, burnt-out buildings and rusted furniture testify to the guard's rampage of destruction.

But earliest of all is the overwhelming presence of 1980. Every building, wall and classroom blooms in a riot of coloured graffiti, holding frozen, like a smashed clock, the politics of the moment when the national guard stormed their way in on June 26, 1980, killing 27 students. Today a new generation of students read, learn and talk under pictures of martyred student leaders, under slogans denouncing the "Justa of Assassins" and announcing, in the name of revolutionary student organizations now in clandestinity, the imminence of the insurrection.

It is a bizarre conjunction of two critical moments in Salvadorean history: the last days of the open popular opposition in 1980 and the first stirrings of a new one today.

"We have a double educational problem," said the rector, Dr Miguel Angel Parada. "To find the funds for training thousands of new students. But also, because they are new, they don't know the immediate past of the university. The problem is to educate them about this too. The university community has an active role to play in the search for peace in this country."

The portrait of a past rector on the wall behind his desk bears ample testimony to that history: three knife slashes across it are a legacy from a previous "police action" in 1980.

Staff moved back on to the campus in September. It took two months to restore minimum habitability. Teams of cleaners, wearing face

masks to guard against infection, swept out the buildings. Carpenters and builders moved in. Even in November the campus was like a building site, the sounds of sawing and hammering everywhere. Staff had expected 15,000 applications for the new academic year. With superhuman efforts they were able to offer places to only 9,000. In the event they received 20,000 applications. "This is a vote of confidence in the university," Dr Parada said.

Although constitutionally the state is responsible for financing the UES, the government has done no more than to hand back the campus. "We have received not one penny from the government," said Dr Parada. "President Duarte said he would set the university free, but he is practising economic strangulation." It is estimated that it will cost \$26-27m to repair the damage.

Reconstruction so far has been achieved through the efforts of the academic community itself and through the solidarity of Salvadoreans and the international community. Students pay fees of about \$100 a year, of which \$25 is the legal fixed rate and \$75 the university tariff for materials and reconstruction. The economics building, the only newly decorated building on campus, glows a shocking pink among the flaking walls and rubble around it. Students raised the \$5,000 needed to refurbish the building. International donations are starting to restock the library.

It is still a hand-to-brain existence. What the national guard did not willfully destroy they looted, much of it to sell to the "backstreet" private

universities that mushroomed during the closure.

In the biology laboratories only 28 of the original 375 microscopes remain. Each has to be shared by five of six students. Stocks of chloroform and formalin were totally looted. Biochemistry experiments involving constant temperature can now be performed only crudely by adding ice or applying a flame to a water bath. "We can't give the students a proper training under these circumstances," one lecturer said. Medical students have it even worse. They are still operating on cadavers in a rented garage.

But the university is suffering a strangulation in more than just economic terms. Since June, when Christian Democrat Napoleon Duarte assumed the presidency, pledged to clean up human rights, seven members of the university have been subject to arbitrary arrest and one professor has been murdered. Of the arrested staff and students, only three have appeared in prisons. The other four have "disappeared".

Dr Parada is cautious about President Duarte's moves towards peace talks with the rebels in El Salvador's four-year-old civil war. But he is convinced that the university, through study and discussion, has a key role to play in the search for peace.

"If Duarte uses the talks to his advantage, to be known as a man of peace, but with unacceptable proposals, this will be a manoeuvre," Dr Parada said. "Still, a couple of months ago it was a crime to talk of peace, dialogue. But this has legitimized it. There has been a general clamour with the churches, the universities, proposing dialogue. This is independent of what the government thinks subjectively. Even if the government may have proposed it for other reasons, we have taken the position of treating it seriously. If they talk of peace, we will talk of peace."



Shadow of the past: Miguel Parada sits beneath the slashed portrait of a former rector

The people's university

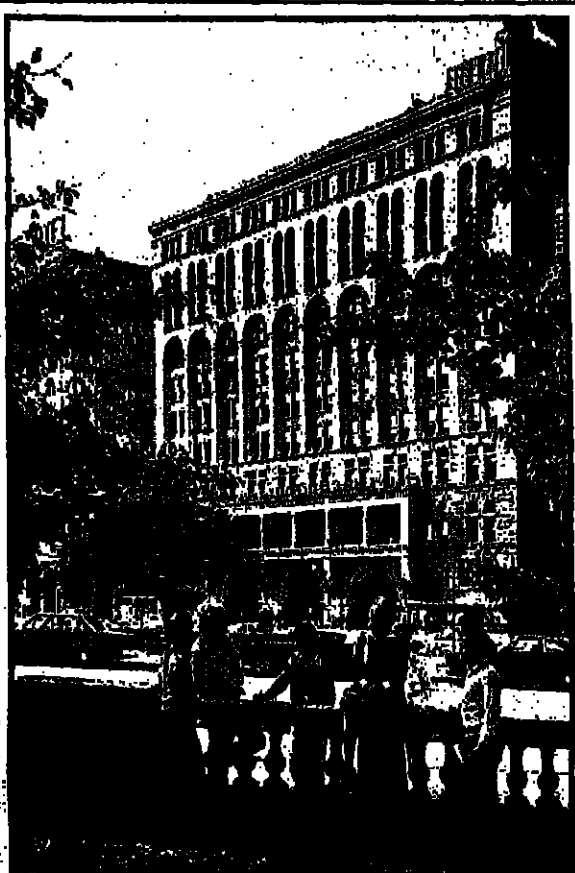
Philip Davies Roberts looks at the development of Chicago's Roosevelt University (right)

Forty-six years ago a concert featuring the American contralto Marian Anderson was scheduled to be given in Constitution Hall, Washington. But when the owners of the hall, the redoubtable Daughters of the American Revolution, realized that Miss Anderson was black, they called the whole thing off. What happened then is now legend: Eleanor Roosevelt, wife of the then president, resigned her DAR membership and arranged for the concert to be given outdoors, at Washington's most revered shrine, the Lincoln Memorial.

Last year an exact replication of the Anderson concert, with black contralto Anita Berry taking the part of the original singer, was given - this time in the great indoor auditorium which is part of Chicago's Roosevelt University. It was fitting, not only because of Roosevelt's link to the original concert, but also because, since its beginnings 40 years ago, Roosevelt University has been a staunch supporter of the equal rights movement.

Roosevelt University grew out of a faculty-staff confrontation at Chicago's YMCA college which began in the 1930s and came to a head at the beginning of 1945. The YMCA board had been demanding that the college president, world-federalist James Spaulding, give them information on the races and religions of applicants for entry to the college. Fearing that some sort of unfairly biased admission quota system "was about to be imposed, Spaulding refused to provide the figures, insisting that he was a 'colour-blind'."

The impasse led to the mass resignation of most of the faculty, who then reformed in order to found an institution where they could run things their way, and where an open admission policy would ensure that academic excellence was the only criterion used to determine whether an applicant would be admitted. They had planned to call it Jefferson College, but in April 1945 when President Roosevelt died



they decided to name it after him. The founding of Roosevelt College (it became a university in 1955) coincided with the return of great numbers of military personnel from Europe. The government had made generous provision for their further education under the GI Bill, and the college had no lack of students.

A major problem faced the founders of the new college. All agreed that Roosevelt should be above all an urban institution, but finding suitable accommodation in the city was not easy. Two years passed before a permanent home was found: the great Auditorium Building designed by two noted American urban architects, Dankmar Adler and Louis Sullivan, completed in 1889, and still the tallest non-steel building in the United States.

Standing on the shores of Lake Michigan, and occupying an entire block just south of the heart of Chicago, the complex was originally conceived as a 400-room hotel, together with 136 offices and shops and a huge concert auditorium seating 4,200. The auditorium is above all noted for its fine acoustics. Frank Lloyd Wright, who worked as chief draughtsman on the project, called it "the greatest room for music and opera in the world at that time."

But the building was in sad shape at the time the fledgling college moved in: its interior and external restoration has continued since 1945, and much still remains to be done. The offices and hotel rooms became classrooms, faculty offices, and laboratories; the main dining room of the hotel was turned into the library, reading room, the former ballroom is now used

as a recital hall for the Chicago Musical College.

The present enrolment at Roosevelt is around 4,500. A further 2,000 students attend the university's new Arlington Heights campus in north-west Chicago. Total staff, full and part-time, numbers just under 500. Eighty per cent of the students are from the Chicago area; the next largest contingent, more than 10 per cent, consists of foreign students - mainly from Continental Europe, western Africa, the Near East, south-east Asia, and Latin America. There were, however, only four students from Great Britain at Roosevelt last year.

University President Rolf Well, himself a refugee from Nazi Germany, feels that overseas students are mainly attracted by Roosevelt's open admissions policy, by its location in a large, attractive, and cosmopolitan city whose society is relatively stable, and by the fact that it is fairly easy to find some sort of work in Chicago - though, strictly speaking, foreign students are not supposed to hold jobs while they are in the United States.

The average age of a Roosevelt student is 23, and most hold down some sort of employment while pursuing their studies. Timetables are drawn up with this in mind, with many classes being offered in the evening or at weekends. The university's college of continuing education even gives older students credit for what it terms "life experience", thereby reducing the number of hours required for a degree.

There are also colleges (ie, schools) of arts and science, business, and education. "Roosevelt University is part of a widespread movement in the West to open up education to a wider cross-section of the population," President Well says. "In that regard, it is comparable to Britain's Open University. Above all we try to appeal to a heterogeneous urban clientele."

Roosevelt's main strength is paradoxically also its greatest weakness: it is a private institution, independent of political pressure, with 80 per cent of its financing derived from tuition fees. Furthermore, it has managed to finish in the black for 17 of the past 18 years. But competition for students is high: Chicago has between 13 and 20 institutions of higher learning, ranging in size from 10,000 downwards. And the

population of the city is actually declining, down by half a million to just over three million in the last few years.

On the other hand, Roosevelt has never been a "youth ghetto", and its main emphasis has always been on scholastic attainment. Only four sports are played: golf, tennis, soccer and basketball - only the last of these being viewed as a major financial commitment. In spite of this, some of Roosevelt's faculty and students feel the university should get out of sports altogether and devote all its resources to academic improvement.

President Well's confidence in the future of Roosevelt is based largely on his belief in further education as a means of social and economic self-improvement - particularly for formerly disadvantaged minorities such as blacks and Jews. Since its founding, the number of blacks at Roosevelt has risen from one-tenth to one-third of the total enrolment.

"Today, a black student with a good personality and positive outlook who leaves Roosevelt with good marks has a better chance of getting into a rewarding career than you do," the president told me (a white). "The real problem is financing an education at a private institution. The very poor are as well off going to Roosevelt as to a public institution, as the government will foot the bill in either case. It's the middle class that suffers, as usual."

By any yardstick, Roosevelt has performed well. A recent study placed the university in the top 5 per cent of 867 private, non-PhD-granting colleges and universities in the United States according to the number of their graduates who subsequently earned doctorates at other institutions. Roosevelt graduates include the mayor of Chicago, Harold Washington, the head of the Massachusetts Institute of Technology, and the president of Macy's department store in New York.

Roosevelt University's ability to accommodate a diversity of political views is perhaps no more remarkable than its constant preoccupation with the hopes and concerns of ordinary people. Both leave the impression of a friendly and outgoing place, very much in touch with the world outside. "We believe in going where the people are," President Well says. "We're a people's university."

Ngaio Crequer looks at the efficiency studies taking place in the universities

The efficient management of the universities suddenly seems to have become a growth industry. The Department of Education and Science is funding a study directed by Professor John Sizer, of Loughborough University, on management responses to retrenchment and the University Grants Committee is conducting a detailed review of the way it distributes resources, and has said this will involve radical changes in approach.

As a first stage, the UGC is setting up three groups, with representation from the vice chancellors' committee and the research councils to look at how a selective research policy could be implemented, both the UGC and DES are looking at "performance indicators" (and in the DES case, civil servants have been sent on courses to find out what it all means) as a means of encouraging efficiency between institutions, and improving accountability. The UGC has said it wants every university to feel it can improve its resources and student numbers relative to other universities, by its performance.

And of course the Jarratt efficiency inquiries, studies of financial management, purchasing, and maintenance and servicing of buildings at six universities, will yield their first results early in 1985. Jarratt is also carrying out a general data study, looking at the kind of financial information required by local audit purposes and general statistical information such as staff student numbers, degrees obtained, etc (but nothing on the nature and content of the academic work of the universities).

The aim is to see what information is nationally required of the universities, whether the information required is coordinated and correlates with the universities' internal management systems, and what use is made of the information. Cambridge, Manchester, Sussex, Warwick and Heriot-Watt universities are being used as representative samples in this study, which will be completed before the end of February, 1985.

The Jarratt inquiries will no doubt spawn others: the precedent has been set that outsiders can go in and inspect. Guidelines have been rigorous this time but will inevitably stretch.

The DES has obviously given some thought to what they will do with any bonus savings highlighted by Jarratt. The Committee of Vice Chancellors and Principals exacted a promise at the beginning of Jarratt that any savings would go back into the university system.

Mr David Hancock, DES permanent secretary, recently told a House of Commons Treasury Select Committee that Jarratt money might be used to increase the number of science places. So the search for information and the desire to establish sound planning systems is apparent. Nor, of course, is it just happening in the universities. The DES is also funding a study of management strategies in the polytechnics, looking at how a group of institutions are reacting to the National Advisory Body's 1984/85 planning exercise. It is being carried out by the North East London Polytechnic, in collaboration with Sheffield Polytechnic.

This and the Sizer inquiry in the universities are essentially parallel studies, although the polytechnic study is centralized and the university study decentralized.

Putting the system under the microscope



Sir Peter Swinnerton-Dyer: no great changes

The Sizer study looks at how individual universities responded to the UGC letter of 1981, which imposed selective cuts, made recommendations regarding subject areas and laid down student target numbers for three years.

Nine universities, representing a cross-section of type of institution and level of cut, are taking part in the £100,000 study. They are Aston, Sheffield, Aberdeen, Stirling, Sussex, Heriot-Watt, Hull, Salford and Bath.

The study will look at three different aspects: how each university reacted between May 1979 and July 1981, in the run-up to the letter; how each developed plans to implement the decisions of July 1981; and the impact of decisions they took on academic and related areas, on other areas, and on academic services.

At the end of each stage the university teams will highlight what they regard as good managerial practices and lessons for the future, how they could

have done better.

Professor Sizer is also preparing his own background papers, one analysing the university sector from May 1979 and the climate at the time, as a reminder of the atmosphere. A second paper will look at the events.

Although he has recently become a member of the UGC, Professor Sizer is deliberately not taking advantage of his membership (however tempting) to look at the files and perhaps answer some questions that people have been putting ever since 1981.

"The intention is not to produce a policy paper that is, say, critical of Government policy. The policy was put forward and our job is to see whether it could have been done more effectively and what was the impact in the universities."

"The UGC cannot monitor in detail what goes on in the universities. One effect will be to ensure that Government understands the impact of a particular policy. Another will be that universities will learn from their experiences."

Professor Sizer is one of a small number of men (of course) now on the UGC, but coping with the cuts from the university end in 1981. Their experience and views on how further retrenchment should be carried out, if necessary, may be crucial.

Sir Peter Swinnerton-Dyer, chairman of the UGC, and also a new boy in that sense, has made it clear to his committee that there should not be changes of more than 10 per cent in any given period. Cuts greater than that lead only to disunity. This is not to say that over a long period, radical funding changes will not be made.

Part of the search for identifiable performance indicators is bound up with the desire to make the UGC more accountable and less mystical in its deliberations.

Ideally Sir Peter would like to arrive at a common teaching unit of research, so that one university could be compared with another. But there are so many layers of mystification, known in shorthand as "historical funding" that it will be some time before we get to this situation.

The universities themselves are not over-keen in presenting themselves for public inspection, even if there are advantages in knowing why you have been underfunded for many years.

One of the by-products of demystification may be yet another incursion into university autonomy. If, for example, after taking account of different approaches, university x is found to be costing much more than university y in teaching engineering, what will happen then?

At the least the more expensive university will itself make attempts to fall into line. If not, the UGC may make its views felt. Or the university might even suffer in slightly different ways.

In the letter sent by the UGC to universities asking for bids in the event of Government money for the shift to science and technology, the UGC said that it would expect Government to indicate the number of places available and the disciplinary areas in which they should be provided.

It would not be surprising if the Government went further especially if it knew some departments were cheaper than others, if it indicated which departments should benefit.

David Jobbins reports on the lessons learned by Natfhe over affiliation

Balancing the inside and outside worlds

By and large trade union affiliations to national and international bodies other than mainstream organizations such as the TUC are heavily tokenistic.

The course of events in a strife-torn central American republic is unlikely to be changed radically by the addition or subtraction of a single affiliation fee, perhaps of £100 or less.

But the stability of a trade union agonizing over whether to make the payment may be nudged even upset by internal dissent from or support for the cause.

This has now been recognized by the National Association of Teachers in Further and Higher Education, beset by months of internal bickering over a conference decision to affiliate to the Campaign for Nuclear Disarmament.

Natfhe succeeded in extricating itself from the CND debacle with minimal damage to its membership statistics or - amazingly - its pro-unilateralist policies.

But union leaders were determined that the lessons should be learned. They recognized that an important distinction had to be drawn between campaigning actively on general questions and arguing endlessly over the merits and standing of the one-off pressure groups supporting specific issues.

As it happened, a triennial review of affiliation was due in 1984; and with the abutment on CND fresh in their minds, union leaders began to vet the 38 organizations to which Natfhe was affiliated at the end of May 1984.

On the domestic front, disaffiliation from the TUC, the Irish Congress of Trade Unions and the dozen

or so educational bodies currently on the list was out of the question. No questions were raised over a number of others such as the Campaign for Press Freedom, the Labour Research Department, the National Association for Mental Health, or even the National Abortion Campaign.

Of more than 30 national organizations to which Natfhe was affiliated, the union's national council decided to erase only one from the list.

The victim was the Anti-Nazi League, founded in 1977 to combat the growing support of the National Front. Natfhe affiliated the following year, after going through a similar process of self-examination to that which preceded affiliation to CND.

But the union's national council was told in November that ANL appeared to be inactive and an end to the link was agreed without controversy.

Overseas affiliations proved more complex. Natfhe leaders were conscious that a string of pleas for affiliations to one-country solidarity campaigns - El Salvador, Nicaragua, Iraq - were in the pipeline.

Natfhe already had many broad-spectrum international links - Amnesty International, the World Confederation of Organizations of the Teaching Profession, the European Trade Union Committee for Education.

One-issue links were a relative rarity, comprising the Chile Solidarity Campaign, the anti-apartheid movement, and the Campaign Against Rerutverbot, the test of loyalty for government employees in the German Federal Republic under which Communists and other left-wingers have been barred from



The decision to affiliate CND led to months of internal bickering

teaching and other jobs.

The union's international relations standing panel drew up a policy presented to council by its chair, Mr Geoff Woolf, advocating support of broad spectrum, leaving single-country campaigns to lapse at the next review in 1987.

The policy was adopted, including an exception for anti-apartheid, and the writing was on the wall for the Chile Solidarity Campaign and the aspirations of the other one-country organizations.

"A whole lot of people across the spectrum had got the bug that discussions on the technicalities of affiliation were in danger of superseding reality," general secretary Peter Dawson said.

"We have a range of policies and these can be used to make statements, protests, and organize activities.

They are fundamentally more important than detailed and arcane debates on whether to spend £5 on affiliating to a particular body."

Anti-apartheid became an exception because of the union's strong commitment to oppose racism and the unique racist structure of the South African state.

A similar exception is likely to be made in the case of the Campaign against Rerutverbot before the next triennial review of affiliation.

In the meantime, Natfhe is to affiliate to the broadly-based but uncompromising World Disarmament Campaign, an organization with a strong unilateralist streak and supported by many church groups. It is also to inherit three affiliations from the Association for Adult and Continuing Education, now merged with Natfhe.

Scope for second chances

In 1980/81 there were 194,810 evening and correspondence students in Hungary. That is two-thirds the number of United Kingdom part-time students in the same period. (292,500 including the Open University.) Hungary's population is 10 million - less than one fifth of the UK's.

Hungarian adult education seen through British eyes is not only extraordinary in scale. The "adult versus continuing" debate here is non-existent. There, in Hungary adult education is exactly the same as mainstream education, primary, secondary and further. It just happens in the evenings or by post.

The mass adult education movement there started relatively late: after the Second World War. It was Fabian on a communist scale: second chance education for worker self-improvement. The numbers have increased (see table), but the style remains much the same.

To re-enter education in Hungary after dropping out, you have to start where you left off. So those who did not complete their eight years of primary education - now, after 30 years of compulsory primary education, mainly gypsies - go back to primary school (in the primary school building) to complete the years and the course they missed.

The same is true of secondary and further education: daytime students start around 8 am and finish between 2 pm and 3 pm then the evening students come in at 3.30 until 8.30 pm. In some universities, including the most prestigious, 50 per cent of those enrolling are evening and correspondence students.

Why do they do it? They are in pursuit of better qualifications and more money. Gaining the school-leaving certificate or *matura* gives skilled worker status and automatic higher pay. Anyone who gains the *matura* and is under 35 can also take the university entrance exam on equal terms with school-leavers. There are many more applicants than places for daytime university courses, but every-one qualified eventually gets an evening or correspondence place.

At a Budapest evening economics technical secondary school - training accounts workers or entrants to the economics university - there are 600 students, average age 30. One third are manual workers, the rest white collar: 90 per cent are women. (In contrast to the motor mechanics school, where 100 per cent are men.)

As well as economics and accounting, they have to learn Hungarian language and literature, maths and physics. They have different textbooks from daytime students, but teaching methods - all Hungarian students raise their hands before speaking - are the same. Correspondence students use the same textbooks; there are no cassettes, television or radio programmes as part of their course. There is no special training for teachers or adults.

Correspondence students come in for quarterly oral and written assessments. Evening students have exams every nine weeks - more than their daytime counterparts. About 5 to 10 per cent fail in addition to a 25 to 30 per cent drop out rate.

But what the system lacks in adult education methods, it makes up in time off. Evening students leave their jobs a paid hour early on their three nights a week; they have 10 days paid extra leave a year for exams and 20 days for the *matura*.

This is clearly crucial: when Hungary went over to a five day working week in 1981, employers cracked down on study leave and evening class student numbers fell by 20 per cent. Even now they have not recovered.

The policy emphasis meanwhile is changing: many evening students are now taking a second qualification; at the universities many are on their second degree. Words like "updating" are becoming common. Research in adult education pedagogy is developing. If anyone wants to see the mass adult education system that never happened in nineteenth century Britain, they should visit Hungary before it is too late.

Karen Gold

Harold Silver

Knowing where we are and where we are going

Fortunately not all discussions of higher education are about prejudices and stereotypes, or about the *status quo ante*, or about the short term, though much of it is. To some extent understanding - since it is extremely difficult to invent ways of thinking about higher education, especially, as now and in the recent past, in conditions of crisis or desperate unease. Such ways of thinking need, however, to be invented, or reinvented, since familiar patterns and assumptions of happier or lazier decades have evaporated long ago.

Comments in two of the small crop of important 1984 books on higher education have stimulated the reflection. Early in the year, in *The Crisis of the University*, Peter Scott told us starkly: "So far as we have in Britain any policy for higher education, it is the binary policy." At the end of the year, Burton Clark in mainly Anglo-American *Perspectives on Higher Education*, ends his discussion of eight higher education, of course, has had - outstandingly via Carnegie - the halo effect of sustained, high-level analysis of the "system", its 3000 institutions, its processes and populations. The US literature may rarely have signalled the system's vigorous health, but it has, from Thwing in the 1900s, through Veblen and Flexner, Rissman and Kerr, announced that there are talents at work to interpret the heartbeat. Since Robbins and the binary decision of the 1960s, British analysis of higher education policy and the system has been meagre. Niblett, Becker and Kogan... the Leverhulme exercise... a small number of research projects... there are such milestones but not many.

If, as is implied, we have little in the way of policy, and hardly know where we are, what is anyone telling us, and what do we need to hear? These days it might appear, understanding it, not enough - or perhaps even necessary. The point, said Marx, is not to interpret the world, but to change it. The point becomes more acceptable if *not only* is substituted for *not*, and if we remember that the subsequent history of the world - and of Marxism - underlines the danger of confidently predicting the direction of change.

The history of higher education in the past four years reminds us especially that there are conditions of change, coupled with the absence of policy - which may be precarious or worse.

So there is virtue in exploring, as Scott did, the condition of the "system" and its "policies", attempting to see beyond the crisis. Scott argued for and conducted an examination of the binary policy, its aims, ambiguities, strengths, weaknesses, and implications for the whole of higher education - not just for the public sector. It was important that agenda to be stated in those terms and for the crisis to be analysed in terms of principle, underlying historical explanations, available criteria for making decisions, planning futures. The argument is difficult because the elements in the mid-1980s are confusing, often obscured and almost invisible.

Against the background of pessimism and gloom and unpopularity of recent years one looks for small straws in a high, cold wind. In September, the University Grants Committee and the National Advisory Body for Local Authority Higher Education proffered the Secretary of State, in addition to separate advice, the welcome innovation of a joint statement - welcome almost regardless of the concerns it addressed.

The Society for Research into Higher Education, in addition to its earlier involvement in the Leverhulme study of the future of higher education, launched a small forum with the participation of many of the higher education parties. In December, the Council for National Academic Awards agreed to establish a Development fund for its institutions, and launched a discussion of possible new relationships with them.

The NAB also announced a research

initiative, and in December, from what is now a permanent base, it placed some emphasis on long-term planning in its bulletin. *Studies in Higher Education* decided to go from two to three issues a year. In the shadows at the end of the year were the Lindop inquiry into validation, the aftermath of the student grants fiasco, renewed echoes of student loans, and the desperate efforts of Middlesex Polytechnic to achieve terminalological UDL. And ahead, for mid-1985, a Green Paper. If higher education did not in 1984 move on its axis, there were possible glimpses of changes of tone, or something. Whether government or the DES were initiating or hearing them may be doubtful. But where people are trying to interpret, or even portray, the system and find bases for rational change, there may just be the possibility of renewed optimism and energy.

Burton Clark's comment in *Perspectives* is an important reminder of the constant need for bearings. American higher education, of course, has had - outstandingly via Carnegie - the halo effect of sustained, high-level analysis of the "system", its 3000 institutions, its processes and populations. The US literature may rarely have signalled the system's vigorous health, but it has, from Thwing in the 1900s, through Veblen and Flexner, Rissman and Kerr, announced that there are talents at work to interpret the heartbeat. Since Robbins and the binary decision of the 1960s, British analysis of higher education policy and the system has been meagre. Niblett, Becker and Kogan... the Leverhulme exercise... a small number of research projects... there are such milestones but not many.

Perspectives has an international resonance but is particularly interesting in the British situation. It invokes, with four British contributors, a range of disciplines and approaches by which to suggest how "higher education" (which, alas, for some contributors slides into "universities") operates on the large and the small scale, is organized, constrained, makes and reacts to policy, changes direction (mainly on the margins), becomes more or less centralized, is misunderstood, and may, in the international arena, be destroyed. What the contributors bring to the exercise is not designs or formulae but the inquiry of disciplines - history and political science, organizational and cultural theory, education and considerations of science and policy analysis. An exercise such as this, at such a time, is strong not only in explanation but also in morale.

If it is important to react and defend (even the bad against the worse?), it is also crucial to interpret, understand, and to maintain a relationship between values and planning and change. Hence the significance of the messages from *Crisis* and *Perspectives*. *Crisis* is still the best description of the state of higher education, and nebulous is still the best description of higher education policy.

British higher education has never been adept at responding creatively to conditions of change, and in the absence of adequate resources, ad hoc places for intending students, perspectives have been misfiring and thought paralyzed. Sympathy with higher education dilemmas in the present should not, however, disguise its past failures and its relative inability and unwillingness to think about futures beyond the path boundaries of an academic board or senate or national committee.

We still need to invent ways of thinking about futures for higher education - which means help in understanding where we have been, and where we

Earth: the power within

Rod Wilson on the strength of the Earth's archaeomagnetic field

The Earth's magnetic field is encountered everywhere about the Earth and existed as far back as we can trace - at least 3,000,000,000 years. The remarkable magnetic record of this field which persists in rocks has led to a revolution in our understanding of the Earth - the notion of plate tectonics or continental drift - comparable to the apprehension in the last century of the meaning of fossils in rocks. Indeed, the magnetization in rocks is an invisible fossilization.

The newsworthiness and easy visualization of plate tectonics have thrown a shadow over other aspects of the geomagnetic field. One tends to forget that most scientists in the first half of this century held the tacit assumption that the Earth's crust was virtually static except for small fractures. Most of the few who studied "rock magnetism" considered that, record in the rocks was yielding information about the past behaviour, not of the solid Earth, but of the ancient magnetic field itself. And so it does - it does both.

When we look at the record of the past few thousand years, as we can by examining the magnetization of, say, recently laid down clays, historic lavas on Mount Etna or artefacts produced by our own ancestors, then plate tectonics doesn't have a look-in. There hasn't been enough time for significant plate movement. But during those paltry few thousand years there has been plenty of time for the magnetic field itself to wriggle, increase and decrease quite a bit. It's very lively compared with mountain building, even if rather more sedate than the weather. How do we know?

Place an ordinary magnetic compass on a wooden table in your garden. It points to the magnetic north; and given patience you could observe the field wriggling over several years with this alone. Further, imagine the compass turned on edge. With adequate bearings it could tell you how steeply the field points downwards. You now know about the *direction* of the geomagnetic field in your garden.

What about its *strength*? Lay the compass flat again and remove the glass. Gently turn the needle to point east, and let go. The strength of the field is indicated by how smartly the needle snaps (or drifts) back to point north. Given little friction, the needle overshoots north and then returns, oscillating about north several times. The more rapid the oscillation, the stronger the field. Timing this period of oscillation wasn't too difficult even two centuries ago, when gentlemen's sons, doing the grand tour of Europe, added to the scientific knowledge of the day by noting the period of a silver of lodestone hung on a hair, in order to find at least a relative measure of the strength of the magnetic field at various places.

I think it's safe to say that modern magnetometers, no matter how sensitive and sophisticated, hinge mainly on the phenomena I've just mentioned. They can detect not only the Earth's magnetic field, but also the far weaker fields arising from objects like bits of clay, answer to pottery. And therein lies the answer to the mysteries of the "archaeomagnetic field", which our ancestors scarcely dreamed of, let alone measured. We bring this ancient field forward to ourselves, preserved



in these objects - for when they were created they acquired by divers means a very permanent magnetization induced by the (then) geomagnetic field, and so recorded it. Our ancestors unwittingly produced many records for us. They lie in the museums of the world, and in as yet undug archaeological sites everywhere.

Since the pioneering work of Chevallier, Thellier and Koenigsberger in the 1920s and 1930s there has been a protracted struggle to decipher the record contained in archaeological materials. The effort needed to recover the swings of field direction over the last few thousand years has been considerable, but even harder has been the search for a reliable method of retrieving ancient field strength. The only advantage we start with is that the specimen used for strength determination need not be found in its originally manufactured orientation - which makes available much more material than for directional studies.

Usually the specimen has acquired its magnetization originally by being fired and cooled. In that case it has to be fired again in the laboratory in a known magnetic field in order to determine the ancient field strength. This refining very often changes the magnetic properties of the specimen to such an extent that the new magnetization can no longer be legitimately compared with the original. Dr Martin Aitken of Oxford University adopts stringent tests of "no change during firing", which result in 50 per cent or more of his specimens being rejected - a considerable dilution of effort! His latest results for geomagnetic field strength in the Middle East are shown on the graph as solid dots.

Not all magnetization processes involve firing. Dr K. Ganes, while at Liverpool University, investigated simple sun-dried mud bricks from Egypt, covering the period 3000 to 0 bc. There the process of magnetization took place during throwing or pouring the mud into a former, as far as we are aware. Reproduction of this process in the lab also produced estimates of the ancient field strength in the Middle East. They (open circles) are compared with Dr Aitken's on the graph. The agreement of the two methods is quite satisfactory, given the state of the art; but between 1200 and 1000 bc they disagree drastically. We are uncertain why this is so. Is it magnetic technique or specimen dating which causes the discrepancy? The frustrations of this research are manifest.

What use is this information? Well, from the archaeologist's standpoint,

we can hope to use these graphs "backwards", and by finding first the ancient field strength from an unknown specimen, deduce its age. Of course, this supposes the preexistence of a graph for that region created by using specimens of known ages. Also, since the field strength occasionally repeats earlier values, these deduced ages will not be unique unless constrained by other information to a band of a few hundred or a thousand years; then the magnetic information will "snap up" the age - specify it more precisely.

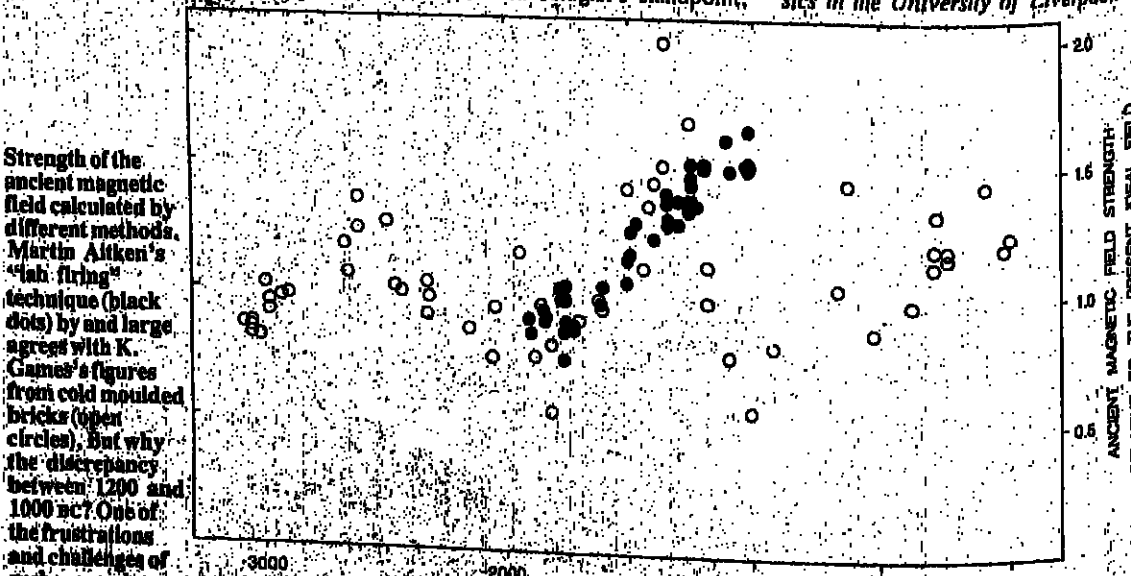
A curious twist to this tale is that while we will not doubt be using the well-known radio-carbon dating technique more and more in future, to establish curves such as those shown in the figure, nevertheless the accuracy of this kind of age determination depends on knowledge of the variations of the geomagnetic field! The amount of radio-carbon (carbon 14) in the ancient atmosphere depended on the strength of the geomagnetic field, which screened the cosmic rays that produced radio-carbon. It is an elegant mental exercise to decide whether or not we can find field variations and ages "from each other". (We can.)

There's another reason for wanting information about field behaviour. We don't know in detail how the geomagnetic field is generated inside the Earth. The only evidence we can ever have comes from measurements outside the Earth. The more comprehensive the measurements over the Earth and over time, the better we can test any proposed generation theories. For example, the graph shows that the field can double in a few hundred years; something we have discovered only in the last decade. We also know that the entire magnetic field topples completely over, so that all compasses would point southwards, a few times each million years. The toppling takes only a few thousand years. So it's clear that the source of the field is constantly changing at rates which far exceed those of normal geological processes. The only known part of the Earth which could move about at these rates is the Earth's liquid core.

So we have this general insight into the place and rate of variation of the source. Any theory which does not accommodate such observations must be rejected. However, it seems we can never directly observe the Earth's deep interior a few thousand kilometres down, even in the future, much less in the past. It will be a long haul to accumulate enough surface data of quality adequate to discriminate between competing theories. A few decades back, Sir Edward Bullard remarked that the mechanism of production of the geomagnetic field was one of the prime unsolved problems of science. This is still so largely due to the difficulty of acquiring lots of good experimental data.

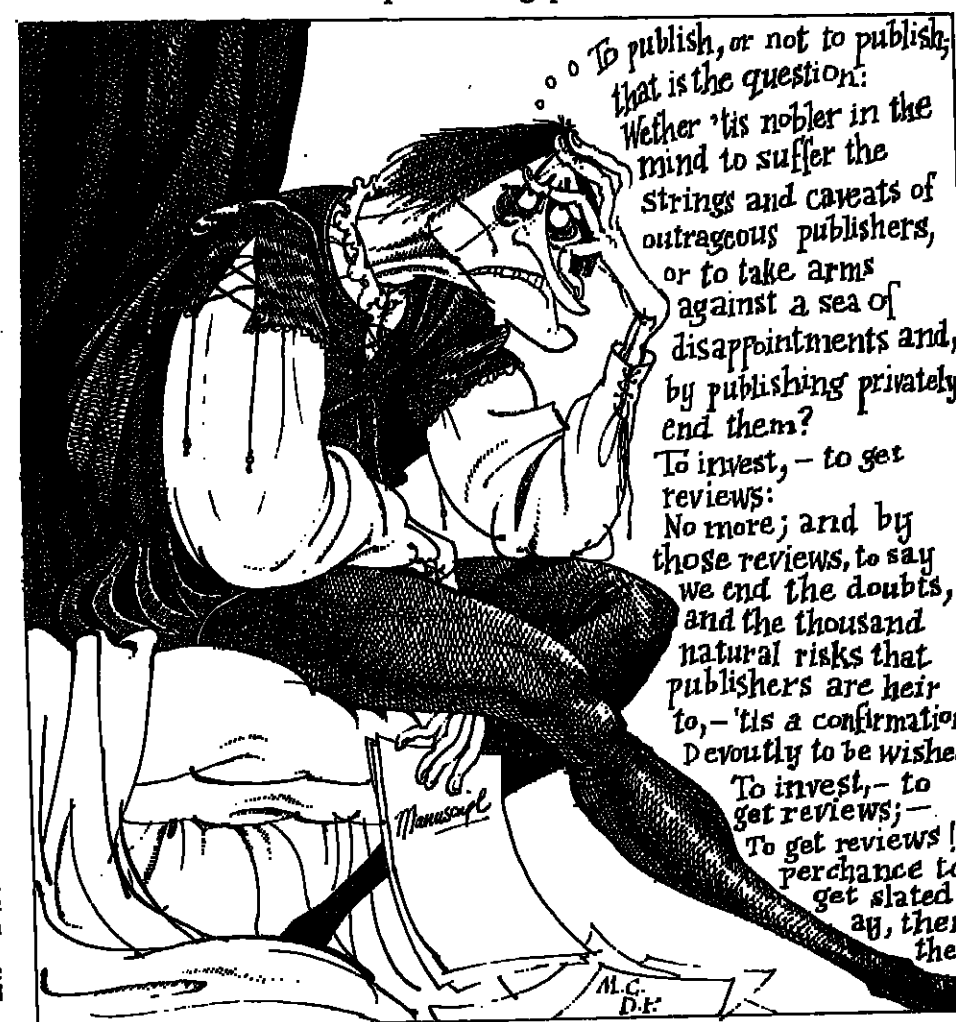
Many of the other planets have magnetic fields (Jupiter's is particularly strong), and those of the stars are sometimes immensely greater than those we ourselves can produce. Glaxos too seem to have associated fields. Understanding the source of the Earth's magnetic field might have wide ramifications in the sphere of astronomy and perhaps even of fundamental physics. Meanwhile, the patient scientist sits on. It's not all instantaneous glory!

The author has just taken early retirement from the department of geophysics in the University of Liverpool.



Do-it-yourself publishing

R. S. White realized his Shakespearean books would have limited appeal so he had them printed himself. He describes how he undertook the publishing process



In 1981 and again in 1982 I printed privately academic books in my field of Shakespearean studies, as experiments in new modes of publication. Since then I have received many letters from colleagues in various departments in universities over the world, and it seemed useful to share my experiences. Since the experiments can now be claimed as complete successes I can speak without defensiveness and in a spirit of encouragement. I should like to suggest some ways in which publishing academic works initially in this way might solve a lot of problems and also lead to a more clear and mutually beneficial relationship between commercial publishing houses and the academic world.

I did not set out with any intentions of either subverting publishers or wanting to get into print books which had been rejected. I did not offer the manuscripts to commercial houses but pursued the independent course from the outset, having first asked expert colleagues in the field to give an opinion on the merits of the books. The immediate advantages were very clear. After obtaining bank loans which were relatively modest compared with, say, a new car (under £750 each in those days), each book was published within two months of going to the printers and the print-run of 500 copies was sold out within a year.

The books were priced to cover costs (one appearing, in the words of *The Times* reviewer, at an "astonishingly low cost"), and they did so. I was encouraged by generous, useful reviews and by letters from people I had never met to try then to reach a larger audience of readers through more conventional channels. I now have very amicable relations with publishers in Britain and the USA who are producing new editions in considerably larger print-runs. I feel that having very quickly injected some ideas into the veins of academic thinking, the books can now be made more accessible to a body of readers in colleges, schools and universities.

Since the ventures are not quite so constrained by financial limitations I have taken the opportunity of adding new material. It is this general system of a "two-tiered" approach to academic publishing which I should like to advocate on a more organized basis, and I believe that, given some very slight alterations in attitudes, the system would act to the benefit of publishers and writers alike.

What, then, should be the precise relationship between commercial, academic publishing and "alternative" production? Perhaps you feel your book is too specific to aim at a mass audience but will be valuable to academics and teachers in your own and adjacent fields. Perhaps you feel your subject is not one that can or should be "watered down" to appeal to a larger audience. In other words your book fits into a category which commercial publishers, however full of goodwill may not consider marketable.

Or else, of course, you may feel your ideas are thoroughly marketable but you have a fascination in the process of printing a book and don't want to be excluded from any stage in the production of your artefact. The first priority, which may be easier said than done by any self-critical writer, is to make sure that you honestly believe the book is worth publishing. Perhaps I was more cautious than necessary, but I asked experts to read the books critically and fellow-teachers were given licence to be as devastating as they wished. Without the professional services of anonymous readers these steps seemed the most effective way of spotting large errors, and the rest are a matter of individual judgment in a more risky way.

The great benefit was the basis of the sympathetic but critical reader - rather than the anonymity of somebody whom might have been totally out of sympathy with the approach for ideological reasons, whom one could not attempt to persuade. This initial step of validating the work seemed very important to me since I realized that to set the project on the footing of a viable and respectable course of action for other academics I had to make as sure as possible that the books would not smack of the "vanity press". Such a result would have discredited the enterprise.

The next steps are practical: i) Get the manuscript typed as attractively as possible on an electric machine using carbon ribbon. The proof-reading must be finalized, since the printing will be done from this copy; ii) Consult a printing company. A normal firm will do the whole job, but if you want it done quickly, cheaply and want to involve yourself, find a "community" press. I used the Tyneside Free Press which did excellent jobs, but there are others in Leeds, London and elsewhere. Ask them for a quote for printing the books in a conventional format by the offset-lithography method, getting them to specify costs for different quantities, including "run-on" numbers. Ask their advice about the kinds and costs of covers which can be printed, and get them to quote also on binding costs. Of course, paperbacks are far more economical than hardbacks.

Before looking at the general implications of private publishing, I can offer specific details to help anybody who is contemplating it. Let us say you have a relatively short manuscript (I cannot speak from knowledge about costing books over 150 pages), and for one reason or another you want it to appear in print as quickly and cheaply as possible, without setting yourself up as a commercial publisher and you are not too bothered about making any profit.

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estimate for packing and postage, and any other costs you have incurred. Then, if you are asking for a bank loan to cover the outlay, convince your bank manager that you are a competent business person.

ii) Apply for an ISBN number. The first step towards printing can be done by the press but it is cheaper and more satisfying to do yourself. This is "pasting-up", the routine matter of pasting four pages on to one large sheet in a pre-arranged order. The press will advise you. These large sheets will now be photo-reduced and the plates are used to run off copies. At this stage you lose sight of the book, until you are invited to pick it up from the binders as a finished product.

iii) Follow the most time-consuming, exhausting, but necessary job of all - distribution. Some planning can make this easier. Don't use a professional distributor. In my experience they are expensive and they don't push forward the books to shops as enthusiastically as colourful dustjackets from established publishers.

Have printed, or photocopied, a large number of publicity sheets being as assertive as modesty will permit in defining the scope and usefulness of the book. Send these to all individuals, departments and libraries in at least universities and possibly colleges and even schools where you might expect some response. With an order form attached, and a request for pre-payment I was pleasantly surprised by the amount of support that is shown, even before the book is published.

I found that it is considerably less unwieldy and expensive to concentrate on sales in one's own country; at least initially, rather than attempting sales overseas. The latter will come later as a result of reviews. When the book is printed, send copies for review to a selection of journals and newspaper supplements which you know will come out quickly, and to learned journals who will take a long time but may help in the later project of having the book republished in larger quantities.

Newspapers themselves are a bit of a waste of time because, again, they tend to look only at books which are supported by large publishing houses. I did not find the need to advertise. To get the books into bookshops, as distinct from the hands of individuals, unfortunately you will need to traipse around potential shops and hawk it on the leaflet and a request for pre-payment I was pleasantly surprised by the amount of support that is shown, even before the book is published.

The great strength of publishing in one country initially is that, if the demand indicates there is a continuing market for the book, and if reviews are favourable, you can approach commercial publishers in a different country, say the USA, if you have published in the UK, offering them a wide open market. At this stage it will probably be

necessary to be negotiable if you find an interested publisher, since they will ask the opinion of their own readers and assert the primacy of their marketing priorities. At this "second tier" stage some compromise seems intellectually justifiable as well as being pragmatically imperative.

Given that any individual who embarks on such a scheme must pursue it with great energy and commitment, and display a range of talents which might not come naturally, there is one obvious way to lighten the load. If enough academics are interested, some kind of loose cooperative organization could be formed, in which each person could have a specified task which is within his or her own limited time. Such a group would have enormous advantages at the stage of distribution, because there would be immediate "outlets" in several cities and institutions over the country. I suspect that such a grouping would need to exclude the question of money for each project, since ultimately this would have to be the responsibility of the writer, but a little planning might lead to an equitable way of pooling capital for the use of all.

Such a course would, however, inevitably involve more bureaucracy and long-term organization than may be desirable. Anything that directly sets itself up in competition with commercial publishers in this way would probably not be in our best interests for the future. The practical support of one's own department (such as by subsidizing postage and packing) would not only lighten the individual's load but also enhance the department's reputation.

I have implicitly identified the areas in which I feel the "first tier" of academic private publishing can validly flourish. Books which are short, of a somewhat specialized nature, would all have the chance of rapid, cheap circulation in the area where the ideas matter - among fellow specialists and, through libraries, among students who wish to keep abreast of the very latest developments in a field before they have entered the mainstream of public ideas. It is to be hoped that publishers would keep their eyes on such titles at the very least in the hope of future promotion of the most promising writers and at the most with a motive of possibly republishing many of the books which gain currency among specialists in a field. Perhaps expanded editions could then enter the "second tier" without publishers necessarily taking the risk of presenting a totally unknown book.

Judging from my experience, such a state of affairs is not a dream but a practical possibility and it is for our profession even becoming an urgent necessity. But for it to work properly, maintaining high standards of writing, there must be some quiet changes of attitudes both in the publishing trade and, more significantly in academic institutions and among academics themselves.

Some of the publishers I approached concerning new editions for my books simply did not want to look at them because they had already been "published". This is surely a blinkered and defensive version of the word publication; when a book has been issued in a limited number and has proved its own worth in the marketplace, stimulating a demand which is continuing. Publishers would need to be encouraged to look at the very positive advantages of republishing such a book in a large print-run and in a more ambitious format. One very simple, commonsense consideration is that libraries will want to replace a rather fragile paperback edition of an important work with a sturdier hardback edition. Certainly, the grounds for a complementary rather than competitive relationship can be laid, once publishers see the possibilities opened up to them, using their own criteria, by a two-tier system.

The enemy, however, may lie within our institutions. We can, of course, eliminate the prejudice that there is any qualitative difference between the tiers, simply by making sure that we write books which will earn the respect of colleagues in our fields. But academics as a bunch, unfortunately, can still be snobbish, often in ways which are oddly self-destructive of their own best interests as a professional body. Such attitudes, worse still, can be legitimated by institutions themselves, in the way they evaluate the research and publications of their members.

If only because such a mode of publication is more innovative and demanding for the individual, and since it requires far more diverse and difficult skills than simply writing, such books must be acknowledged and respected just as strongly as those published in more orthodox ways, and judged finally according to the merits of the content.

In fact, if a writer is, in such a direct way, taking responsibility for his work, without compromising and without support from flexible publishing institutions, there is every reason to expect that the quality and scrupulousness of academic publishing will be enhanced at every level, both in the sciences and in the humanities.

Revolutionary improvement or even change is probably unlikely in academic publishing, but modest steps can lead to important developments for scholarly writers and readers alike, as well as for the institutions in which they work. The "two-tier" system may be one development worth contemplating.

The author lectures in English at the University of Newcastle upon Tyne.

Geoff Lawler compares training schemes for school-leavers in Britain and West Germany

Imagine that from April 1985 the Youth Training Scheme was to be reviewed so that:

- companies would receive no grants towards the cost of training a young person, including nothing towards the allowance;

- the scheme would last from two to three years;

- the allowance would stay at the same level as it is now with only small rises over a full three-year period;

- all school-leavers would be encouraged to go on it rather than take employment – the only jobs generally available being of an unskilled nature.

Perhaps even more incredible, imagine if the reaction to such an announcement was to be that:

- industry provided more places than necessary, with firms always ensuring that the quality of their schemes came up to scratch to guarantee that they did not lose their training rights;

- unions not only agreed to the new scheme but were instrumental in devising it and supervising its operation;

- 66 per cent of all school-leavers joined the scheme, with only 10 per cent taking full-time employment.

Yet this has been the picture of youth training in West Germany since the vocational training act was passed in 1969.

Just over a year after the start of the first comprehensive training scheme in this country, it is perhaps not too soon to make a comparison. After meeting people involved with the German scheme the difference in attitude soon becomes apparent. Depressingly, this is the biggest block to our achieving a scheme as comprehensive as that in Germany: it is the attitude of the employers, who defy rational economic arguments by recruiting large numbers of young people even in a time of recession.

In Germany there are no financial incentives: in 1980 the average cost to a firm of an apprentice in the dual (work and college) system was around £4,500. However, the benefits of providing a thorough training show already by the third year, when the net cost (taking into account the trainee's contribution to production) falls to £1,750 and thereafter the company has a fully skilled labourer to help keep them competitive.

It is this combination of far-sightedness and a tradition of social and moral responsibility providing for young people that causes German companies to continue to provide places under the system. Nowhere does this manifest itself more clearly than in the attitude to the quality of the scheme; the worst threat that a company can receive is to have its accredited training status withdrawn if the quality of the provision does not meet the required standards.

It is the attitude of the trade unions who instead of viewing the trainees as a threat to the work of adult labour as a depressant effect on skilled wage rates, support the recruitment of young people into the scheme at wage rates averaging 20 per cent of the adult rate during the first year, rising to 30 to 40 per cent by the third year. The trade unions are represented on the local chamber of commerce boards that oversee apprenticeship training quality and trainee examinations, and on



Youth training in Germany: two thirds of school-leavers join the scheme

Land of youth opportunity

the national board of management of the federal labour office. It is this acceptance by the unions of their role as social partners and their broad-mindedness that has produced the cooperation resulting in the implementation of the dual system.

It is the attitude of young Germans, who have been carefully counselled about their career choice and guided into a training scheme rather than straight into work, that led to 66 per cent of school-leavers last year opting for an apprenticeship. Only 10 per cent go straight into employment and this is generally of an unskilled nature. They

accept that leaving middle school at 15 is just another stage in their continued development and not the end of their education and training. Most will regard themselves as not being available for full-time employment for another three years. In the mean time, they will accept that they are trainees with firms investing in their future and will not have any complex about being used as cheap labour.

To implement such a system in this country would, of course, require a policy decision by the government of the day and a legal framework similar to that in Germany, where training

contracts entered into by employer and trainee are covered by the vocational training act. Here the provision governing on-the-job training states: "Vocational training must provide broad basic vocational training, and impart the special skills and knowledge needed for practising a skilled occupation, in a regulated course. Furthermore, opportunity must be given for acquiring the necessary practical experience in that occupation."

There are 450 recognized occupations, the contents of which are laid down in official training regulations (which have the quality of laws and

directly bind the parties involved). This enables a trainee to sue an employer if he considers that his training has not met the required standards and objectives. The other half of the dual system, attendance at vocational school, is also prescribed by statute.

There would be little point, however, in similar legislation being prepared in this country unless there was already support for the scheme from those parties involved, such as was obtained through the youth task group for the Youth Training Scheme.

The success of the German scheme is not easily quantifiable although it has undoubtedly contributed to the success of German industry. In terms of protecting young people from suffering a disproportionate rate of unemployment the effects of the scheme are more tangible. In 1981 the unemployment rate among people under 20 rose to 12.5 per cent for all age groups was 0.93 per cent, compared with 2.36 per cent in Britain. So, in Germany, young people actually had a lower rate of joblessness than the national average. Also clear is the success of the scheme from the point of view of participation: in 1983 there were 678,000 new training contracts, and the total on offer exceeded the number of school-leavers who might want a place. Clearly, the economy of West Germany is assured of a plentiful supply of skilled labour in the years to come.

It is to be hoped that the general success of the Youth Training Scheme in its first year will mark the turn-about in attitudes so desperately needed in this country. Above all, the stigma that YTS is a sop to the unemployed has to be buried once and for all. Otherwise, not only will many young people face a bleak future, but British industry will continue to suffer from the ludicrous current position when, with more than three million unemployed, companies still cannot fill their vacancies for skilled workers.

The author is Conservative MP for Bradford North.



Youth training in Britain: will the YTS initial success mark an about-turn in attitudes?

Martin Loney considers the application of market forces to the middle classes

One law for the quite well-off?

The free market monetarist regards state intervention in the education and welfare area as excessive. The high level of taxation necessary to sustain the ever-expanding welfare state destroys enterprise. Politicians in turn compete for votes by offering to provide yet more "free" goods, free because the consumer does not directly choose to spend his money on them; rather they are financed from general tax revenues. High benefit levels erode the incentive to work and foster dependence on the state. The absence of markets in health and education leads to "producer capture", as the interests of the public are for the convenience of employees.

Universities are inefficient, and riddled with restrictive practices, instead of being dependent upon their consumers for income they are dependent on the Government. Via the University Grants Committee, income is allocated to universities on the basis of a formula which takes into account the number of students, the quality of the teaching, and the research output. This system is a relic of the post-war period, when the Government was the main funder of higher education.

answers, as the new right have argued forcibly and repeatedly, is to create a market in higher education by introducing full-cost fees to force the institutions to calculate their real costs. Student loans would transform students into cost-conscious consumers who would demand not only better education but education geared to the needs of the labour market.

Loans and realistic fee levels can even be defended on the grounds of equity since the existing system constitutes a resource transfer from the poor to the affluent, whose children are vastly over-represented in higher education. The Adam Smith Institute argues: "It is unclear why young building workers should pay higher taxes so that their contemporaries can spend three or four years with free subsistence, at a university that probably has vast landholdings, and qualify for a better-paid job in the process."

The Government's failure to introduce educational vouchers has already led to acerbic interchanges between Sir Keith Joseph, Secretary of State for

Education, and some of his former colleagues at the right-wing Centre for Policy Studies. Disappointment has also been expressed over the slow pace of developments in the launching of a student loan scheme.

The merit of the recent controversial proposals to increase parental contributions to student grants and to charge tuition fees to some categories of students lay in the fact that they might lead to longer-term shifts in the pattern of student support and university financing. The proposed increase in the parental contribution simply restates the pattern of previous years, albeit in sharper form.

The Government has in effect followed a dual policy towards students: grants allowing their real level to fall, while eligibility has been simultaneously restricted. In short the Government has created a *de facto* acceptance of the idea that its role in student finance should be limited. The inadequacy of existing grants and the growing pressure on parents should in turn make the introduction of some form of student loan more popular, whether it is to supplement diminished grants or

to relieve pressure on parental contributions.

The introduction of a charge for tuition, albeit only for those students no longer eligible for a grant, could have been a cautious step towards a broader use of fees as a pricing mechanism in the education market. Why then did the Government back down? The arguments for loans and fees are, from a monetarist point of view, as impeccable as those for other Government policies. The real level of benefits has been cut, measures such as the fair wages resolution, which sought to effect labour market conditions have been abolished, prescription charges have increased by 650 per cent, council house rents by more than 200 per cent, hospital and ancillary services have been privatised. All these measures are consistent with the Government's broader philosophy and provoked little resistance. Their impact was largely felt by lower income groups.

The Government's supporters defended such measures by the price to be paid for putting Government spending and putting Britain back to work.

Curiously no similar support was forthcoming this time, rather compassion has become the new watchword. New right journalists and Conservative MPs bemoan the imagined plight of what Keith Hampson, Conservative MP for Leeds, called the "upwardly thrusting lower middle classes" with a joint income of £20,000. Ministers, suggested Dr Hampson, fail to appreciate "how difficult it is to find an extra £200 per year or more after tax", surely no more difficult that it is to live on a reduced unemployment benefit or to pay twice as much rent.

Keynes, discussing the monetarist policies of the 1920s, suggested that it was "simply a campaign against the standards of life of the working classes". Cynics may conclude that the recent *volte face* over student grants suggests that the same is as true today. Market forces and the minimums may be fine for hospital cleaners but may be less so for the well-heeled Tories in the shires.

The author is senior lecturer in social policy at the Open University.

Keeping the standard flying in the US

Just a year ago, the United States' National Commission on Excellence in Education issued its report and, for the first time in more than a decade, education became an issue of public concern. The commission, and a number of other reports, called for improvements in public education ranging from lengthening the school day to reinstating higher standards for graduation. The high schools were singled out for special criticism.

Those reports have had some impact. The New York State Board of Regents, for example, issued its Action Plan and school districts have been involved in thinking about how to improve educational standards. However, the massive funding needed for real change has not been forthcoming and so far the "excellence movement" has been as much talk as action. One of the big problems has been that the Reagan administration has made it clear that funding will not be provided from federal money – since the war the main source for educational improvement and innovation.

Nevertheless, excellence in education is on the minds of educators as well as the public. Now, the excellence war has been escalated to the higher education level. The new *Report on Excellence in Undergraduate Education* will doubtless focus debate on higher education and may even produce some changes. It is worthwhile to look at the report and its recommendations as well as its background.

The report has some surprising features. It calls for less specialization and less of a technological orientation for the nation's colleges. It stresses the importance of the liberal arts and of general education as an important part of the bachelor's degree. Colleges are asked to pay more attention to the welfare of their students, both in terms of a carefully crafted curriculum and by ensuring good teaching and adequate support services. The colleges are asked to raise their standards of admission and to insist that students have a well rounded secondary school preparation.

Unlike the earlier excellence reports, the study group of the conditions of excellence in American higher education does not launch a full-scale attack on the colleges and universities. Institutions of higher learning are recognized for having done a basically good job, but they are criticized for letting the basic mission of higher education slip away in the social unrest of the 1960s and the vocational atmosphere of the 1970s.

The report cites some alarming statistics: half of the students who start college with the intention of getting a bachelor's degree drop out before finishing; one of eight very able high school seniors chooses not to attend college; scores in most categories of the *Graduate Record Examination* have declined between 1964 and 1982.

Increasing numbers of students in colleges choose narrow vocational specialties. Steep declines have been noted in the physical sciences, biological sciences and in the social sciences. Professional fields have increasingly erected barriers so that students cannot obtain a broad liberal arts background. The teaching profession has also suffered. College and university faculties have lost about 20 per cent of their purchasing power in the past decade.

The proportion of faculty who teach part-time (and who therefore do not have a real commitment to their positions) has risen from 23 per cent in 1966 to 41 per cent in 1980. The proportion of entering college freshmen who intend to pursue careers as college professors has declined from 1.8 per cent in 1966 to 0.2 per cent in 1982 – an 89 per cent decline.

Colleges and universities have grown in size, and there has been a corresponding decline of morale and in the conditions of learning in the "mass" universities. For example,



The excellence war is moving in from high schools to higher education.

while enrolments have increased nearly 400 per cent since 1950, the number of institutions grew by only 40 per cent. American colleges and universities are, in general, "enrolment driven" in that their budgets depend on how many students enrol. In the public sector, the state funds public universities (such as the State University of New York) on the basis of how many students enrol, and if targets are not met, budgets are reduced. In the private sector, institutions survive sometimes depends on maintaining enrolments. Thus, the colleges must worry about maintaining their "headcounts" even at the expense of lowering admissions standards, shifting curricular priorities to areas that will attract students or through other means.

The report recommends a large number of specific steps that, it is claimed, will improve the quality of undergraduate education. There are 27 specific proposals. But they can be summed up fairly quickly:

- Increase student involvement by offering better teaching, more interaction with faculty members and a better social and academic environment. Ensure that the use of learning technologies (such as computers) be used in conjunction with faculty and not as a replacement for good teaching. Reduce the number of part-time faculty.

- Raise expectations for education by ensuring that all students have at least two years of a thoughtfully designed liberal arts curriculum that not only teaches the basic sciences, English and the humanities but also ensures that a student can think and reason. The liberal arts curriculum should be improved and restructured.

- Improve assessment of students by not only grading students in courses but also designing other assessments of knowledge areas and skills learned as part of the curriculum.

These seemingly straightforward suggestions have major implications for how American higher education is structured. The colleges would have to restrain their students from choosing vocationally-oriented subjects, would have to design new testing programs (assessing learning is one of the most difficult parts of academic life), would have to add guidance counsellors and others to the staff. The report recommends raising faculty salaries to keep qualified staff, raise morale and ensure the future of the teaching profession.

For 30 years, American higher education has had a strong commitment to provide access to an ever widening segment of the population – women, blacks, older people and the working class have gone to college in unprecedented numbers. The report hardly mentions these groups and says little about higher education's commitment to broaden the horizons of the American people. The thrust toward excellence is a basically elitist development. It is in response to an increasingly competitive world and to a perception of falling standards in education generally, but it is giving up an important element of the American educational dream.

We are given little guidance concerning how these changes are to be financed. Increased faculty salaries, new assessment programs, curricular innovations and the like cost money. The federal government (which funded this report) is not in the mood to spend money on education. The states have their own financial problems. Tuition at private colleges is already high. Without funds, few of

the reforms will happen.

Higher education policy is shaped, to a considerable extent, by what the public wants. Today's students are vocationally oriented. They want a degree that will bring employment in an increasingly competitive job market. Employers want specific skills. All this may be a mistake – but it will be very difficult indeed to force students to take liberal arts courses which they perceive will lead nowhere. In the 1960s, there was public support for expanding the horizons of higher education. Now, there is an interest in having the colleges directly serve the job market. Educational leadership is needed if even a modest redirection of the curriculum and of the direction of higher education is to be implemented.

Then there is the question of enrolments. Most American colleges and universities, in the difficult 1980s would be hesitant indeed to institute policies that might reduce enrolments. Predictions, for example, in New York State indicate that the college age population will decline by a substantial percentage in the coming years. Thus, colleges will be competing for fewer potential students. Perhaps Harvard and Yale will be able to institute reforms that go against current student preferences, raise standards for graduation and make a success of it. It is unlikely that the large majority of American colleges will be able to make such changes.

The report urges that colleges and their faculties pay more attention to teaching and assessment. At the most prestigious institutions, professors are paid to teach and to research, but they are largely evaluated on their research and publication. At these institutions, changing the basic values of the academic system will be extremely difficult. For the majority of colleges, professors are evaluated on their teaching primarily and it is difficult to see how they will pay more attention to their teaching, particularly since the report's stress on assessment would mean a change in established practice.

Higher education is now in the spotlight. We can expect further analysis and investigation and a certain amount of hand-wringing. Most in the education community will favour the report's main recommendations – that part of the bachelor's degree and that vocationalism has gone too far. Most will also applaud the desire to raise standards and to bring a sense of coherence to undergraduate life.

The thrust of this report is very much in keeping with the current concern for the "survival of the fittest" in education and in society. But what about our commitment to social equality, to equal access, and to the use of the educational system? What about serving "non-traditional" students? What about access? In short, the excellence movement is implicitly opposed to many of the directions of the past two decades. Given enrolment pressures, the paucity of funding, and the entrenched conservatism of the academic community, it is somewhat unlikely that American colleges and universities will be significantly changed by this report. Yet, debate and discussion is important and there are certainly improvements to be made.

Philip G. Altbach

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Africa observed

Africa's intelligentsia should not make the mistake of adopting the European way of thinking, says Adewale Maja-Pearce

A. F. Robertson (*THESE*, September 9) published a lengthy and persuasive article condemning the recent "frenzy of cost cutting" in African studies at British universities.

His argument in favour of the continuing study of Africa in this country was two-fold. First, that Britain has a long-standing, historical responsibility towards the continent "closest to, and in so many respects dependent on, Europe"; specifically, African institutions of higher learning require a steady supply of academics who themselves cannot afford to train, and upon which depends the maintenance of acceptable standards of academic excellence.

Secondly, that the study of Africa, for its own sake, has important consequences for the advancement of knowledge in Britain itself: "It is now generally acknowledged that interdisciplinary area studies achieved a minor revolution in the social sciences during the 1960s and 1970s. Many important ideas and methods, subsequently applied to the study of the Western world, were pioneered by Africanists in Africa: the interpretation of ethnicity, of human origins and migrations, of environmental deterioration, and of the structure of language, mythology and oral history."

These are seductive arguments, and in principle it would be difficult to disagree with him, but consider the following:

A few weeks ago I attended an informal seminar at London University's School of Oriental and African Studies. The subject was "Divination in the Niger Delta", and it promised to include a discussion on the related practice of sacrifice. It was led by the Nigerian research student, a member of the Ijaw tribe who inhabit that region of the country. In the paper he circulated beforehand we learnt that the Ijaw comprise roughly half a million people almost exclusively engaged in fishing, and that they believe, among other things, that the rivers, streams and creeks by which they are surrounded are inhabited by water spirits to whom sacrifice must be made when transgressions are committed against them: if harmony is to be maintained within the community.

For this reason, and powerful position in the society, since it is they who act as the intermediaries between the people and the spirits: it is they who can divine the will of the spirits and name the appropriate sacrifices. Even an unwitting act of divine displeasure by a single individual, such as the accidental killing of a python, can result in the disruption of communal harmony and the loss of their livelihood.

So far so good: the Ijaw have successfully lived in that portion of the world for hundreds of years, after all, so they presumably know what they are talking about. Such, at any rate, was my attitude, and it was in order to learn more about their beliefs that I went to the seminar. But it soon became clear that my attitude was too simplistic, if not downright naive. Here is the conclusion to the paper, which became the starting-point of the ensuing discussion:

"In an area where snake worship, phobias, and tree-god divination, rhabdomy, xylomancy, with all the associated practices abound, the lifestyle of the people will no doubt be affected adversely. It is therefore not the interest of this research to merely come up with new theories on divination, but also to seek solutions to human problems."

In other words, the Ijaw were yet another interesting example of a backward people believing in things we know don't exist. The real purpose of the seminar, therefore, was to find out why they persisted in their foolishness, and how we could help them. And in order for our research student to go about his self-imposed and thankless task what he urgently needed, and what he hoped to get from the audience, were suggestions concerning the kinds of questions he should ask during his field work: what is the strength of belief in the face of the challenge from

the "modern" world?

How does the break down in terms of age and sex? And if people still claimed to believe that, for instance, the python was sacred, was this merely said out of fear (i.e. "primitive" mentality) or out of genuine conviction? Here we were sitting in a room in London and talking about flesh-and-blood people as though they were some sort of intellectual abstraction to be classified and ordered within the bound pages of someone's PhD thesis. That we happened to be talking about the Ijaw people was, in fact, purely coincidental: we might have been talking about any group of people from anywhere in the so-called third world, providing of course they were suitably exotic. It didn't seem to occur to anybody that perhaps a certain measure of humility, not to say generosity, might enable us to learn something, but even to begin to do so would have required an act of faith in the intelligence and humanity of the people we were so arrogantly dismissing.

This is one isolated example, but it is by no means unusual. This is too often what African studies in British universities amount to, and the implications are frightening. One wonders what it was, precisely, that the British social scientists of the 1960s and 1970s learnt from African societies.

And yet, if there had been "a minor revolution", it seems to me that it could only have involved a closer examination of the unspoken assumptions of European society since such an exercise, to be of any value whatsoever, must reside in what I can tell one about one's own society.

Any other approach is unacceptable. It reduces Africans to the level of a strange species to be dissected and examined, and Africa to a huge laboratory. What we should have been asking ourselves in the seminar was whether the notion that the rivers are full of spirits is any more or less outrageous than the notion that the Holy Ghost is present in the Catholic mass, or whether the recently televised execution of an American murderer, complete with all the ritual, was any less an act of sacrifice to the gods for the maintenance of communal harmony.

But these questions were never raised. They weren't "serious" questions, partly because they assume that all human societies everywhere are driven by the same needs and desires, and partly because they don't involve mystifying concepts and impressive words.

Distressingly, about two thirds of the people present at the seminar were themselves African. These Africans, in other words, were happy to allow their societies to be defined within European terms of reference, to see themselves reflected back from the European mirror. Looked at this way, A. F. Robertson's plea can be construed as simply a continuation of British imperialism, what he terms Britain's "historical responsibility". It begins to sound like the same story all over again of Europeans arrogating the right to tell Africans what they can and can't believe, what they should and shouldn't do.

In this, of course, it is Africans themselves who are more culpable, notably the African intelligentsia who are so pitifully eager to confirm European prejudices and adopt European ways of thinking. One might even be sympathetic to those who argue that the time has come, after four centuries of domination, for Africa to be left alone. This might just be happening.

A. F. Robertson notes the decline of the European languages in the continent, and that "regional or national languages have become increasingly important". Nevertheless, there are arguments for African studies at British universities. What one wants to see is African studies approached in the same way as Chinese studies, say, or American studies: that is to say, on an equal footing, and not merely as an "historical responsibility" or a zoological curiosity.

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BOOKS

Steps on the path to victory

by John Gooch

Churchill and Roosevelt: the complete correspondence
volume one: Alliance Emerging
October 1933–November 1942
volume two: Alliance Forged
November 1942–February 1944
volume three: Alliance Declining
February 1944–April 1945
edited by Warren F. Kimball
Princeton University Press, £13.50
ISBN 0 691 05649 8

On September 11, 1939, Franklin D. Roosevelt invited Winston Churchill to "keep me in touch personally with anything you want me to know about". The then First Sea Lord responded quickly, and over the next five years he sent the American president a total of 1,161 messages, receiving 788 in return. This correspondence, judiciously edited, formed one of the main foundations on which Churchill constructed his six-volume history of the Second World War, and selections from it were published nine years ago. Now for the first time we have all the letters, cables, telegrams, memoranda, notes and telephone transcripts which were exchanged between the two leaders and which have been found in the public archives, along with a substantial number of preliminary drafts, corrections and unsent messages. No political correspondence between any two individuals in the twentieth century approaches this one in importance, and both editor and publisher have responded magnificently to the challenge it presents.

The general outlines of the relationship between the two leaders, and the process by which they hammered out an agreed policy on a wide range of strategic and political issues, are already well known. Now it is possible to follow that process in detail, and to trace the day-to-day story with a far greater degree of completeness than ever before. The path to victory was not an easy one; and the partnership between the two western allies was never quite as natural and organic as some later commentators like to suggest. With these volumes to hand, it is possible to appreciate exactly what was involved in the process of accommodation and compromise which ultimately led to the defeat of Hitler and of Hirohito.

From 1940 until the early part of 1943 the relationship between Britain and America was one in which Britain was able to lead, cajoling or persuading the Americans to support her and to adopt her strategic decisions. There were many reasons for this, but one of the most important was Churchill's ability to mount a persuasive argument. This was by no means always an easy task: it took four months, from May until the end of August 1940, before



Malta, 1945: Roosevelt and Churchill aboard the USS Quincy

Roosevelt would agree to invest in Britain by paying with some forty old destroyers in exchange for leases on Caribbean bases. But the British premier was able to devise – and determinedly defend – a grand strategy for the defeat of Germany which led from North Africa to Sicily and then to Italy – using at times some very straight talk.

The messages Churchill sent were frequently longer than those he received, and generally revealed fairly plainly what he felt. Roosevelt revealed much less to Churchill. Successive drafts on the need to grant India its independence were so watered down that the final version sent across the Atlantic disguised the true depths of the president's feeling on this issue.

And an unsent draft attacking a pet Churchillian scheme for an attack on Norway, code-named Juggler, shows that Roosevelt could be every bit as hostile to Churchillian politics. However, other factors besides any lack of absolute candour were at work to distort this trans-oceanic exchange of ideas, for Roosevelt was often extraordinarily vague in his use of language – and even of code-names for military operations. The president was so muddled in his use of the code-names for offensives in Europe and North Africa

during the first half of 1942 that it is almost impossible to know what he had in mind. There is more to this, however, than not knowing the difference between *bolzano* and *sound-up*, for Roosevelt's correspondence on the postwar organization of Europe is often equally vague and imprecise.

During 1943 the American contribution to the war in terms of men and of material began increasingly to outstrip that of Great Britain; and at the same time strategic problems were increasingly displaced by political ones as the Allies began to grapple with the surrender of Axis powers and their satellites and the nature of the postwar world. In these circumstances, Roosevelt displaced Churchill as the dominant partner in their transatlantic pairing. Churchill had proposed the Arcadia meeting in December 1941, and it was Roosevelt who suggested the Casablanca conference of January 1943 and who later that summer secretly tried to arrange a meeting *à deux* with Stalin while denying any such intention to Churchill. The Prime Minister's attempts to retain some sort of influence over the president by arranging for Anglo-American summit conferences before three-way talks with Stalin were neatly circumvented by Roosevelt at Tehran in November

1943 and again at Yalta in February 1945. Churchillian technique was no longer enough to persuade Roosevelt to listen to Britain.

During 1944 Roosevelt expressed himself with increasing firmness. In the spring his anti-colonialism became ever clearer. He sided with most of the military and against Churchill in preferring that preliminary air operations before D-day be aimed at French railroads and local military targets rather than at the German air force. And he absolutely refused to permit any deviation from the agreed strategy of a landing in southern France to prompting Churchill – in an unsent draft – to threaten resignation. The face of the "absolutely perverse strategy" of withdrawing troops from Italy in order to take part in the Awn landing near Marseille. Perhaps the most striking example of Roosevelt's uncooperativeness was his flat refusal on August 26, 1944 to join with Churchill in an appeal to Stalin to allow allied aeroplanes the use of Russian bases in order to supply the Polish Home Army fighting in Warsaw. Earlier, in March 1944, the president had given an example of his general evasiveness when confronted by major questions when he had

suggested putting the issues of the future government of Poland and Polish borders on ice "in line with my general thought that we ought not to cross bridges till we come to them".

Reading through some two thousand pieces of correspondence alerts one to the importance of the style adopted by the two principals when dealing with major issues and with each other. Churchill preferred to tackle a problem head-on and liked to propose hard-and-fast solutions, a technique he first used in respect of strategic considerations and later, after Yalta, seemed disposed to try with political issues also. Roosevelt was altogether more devious, often making his intentions not only from the State Department but even from intimates such as Hopkins and Leahy. Warren Kimball views this characteristic sympathetically, suggesting that it was partly "creative procrastination, based on the belief that many crises solve themselves if left alone, and partly an attempt to direct the thinking of others, on the belief that the way one approaches a problem can be the key to a solution"; but this may be a rationalization of a degree of intellectual laziness which characterized Roosevelt's actions before ill-health grievously eroded his capabilities. He was prepared to rely to an unwelcome degree on personal diplomacy and on his fondly cherished belief that he could handle Stalin better than anyone else because Stalin liked him more than anyone else.

Every piece of this correspondence is fascinating, and one's enjoyment of it is immeasurably enhanced by Warren Kimball's skilful editing. The texts are scrupulously presented, and various technical problems such as the display of alterations and the numbering of documents have been successfully resolved. In addition Professor Kimball provides us with a lengthy introduction, headnotes which explain the significance of every piece of correspondence and fill in the gaps between them, and a series of extended summaries of the major wartime conferences which are quite outstanding. In only one respect is this an incomplete edition. Professor Kimball remarks that at least two messages relating to intelligence matters are not in the declassified British files in the Public Record Office: they relate to atomic decrypts of Japanese cryptograms handed on from London to Washington. Clearly we still have a lot to learn in respect of the intelligence dimension: it appears, for example, that by January 1944 the Russians were able to read some Japanese diplomatic traffic. Despite what is an unavoidable lacuna, this magnificent edition stands as a model of how a correspondence can and should be presented.

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BOOKS

Reason not the need

The Needs of Strangers
by Michael Ignatieff
Chatto & Windus, £9.95 and £3.95
ISBN 0 7011 2866 6 and 2867 4

The concept of human need is notoriously elusive. We talk confidently about our needs and those of others, but seem to know what we mean only so long as we do not think too hard about it. For once we reflect on what we mean by a need, as opposed to something merely wanted or desired, the firm boundaries between needs, wants, desires and whims begin to dissolve.

Every attempt to restore them by appealing behind the subjectivity of desire to a definition of need in terms of the objective conditions required for human survival runs up against seemingly intractable problems. Not only are the conditions of survival not everywhere the same, but what we mean by "human" in the phrase "human survival" entails something more than biological preservation. While we can identify the needs of other species in terms of the provision of an environment capable of supporting their specific forms of life, the human form of life is historically variable and characterized less by the adaptation of man to the environment than by the transformation of the environment to suit whatever men conceive their need to be. Try as we may to construct an objective model of human needs the element of subjectivity creeps in, and with it uncertainty as to where needs end and the insatiable realm of human longing begins.

In a welfare state, which sets itself the task of meeting the needs of its citizens, the problem of defining needs is both urgent and practical; and in recent years a vast but inconclusive literature has grown up around the subject. Economic and demographic pressures make it uncertain how far the resources of the state, dependent as they are on the performance of the economy, can continue to meet even such needs as were taken for granted in the postwar years. Increasingly influential sceptics have expressed doubt as to whether the state is even competent to do so. New "needs", such as the "need" for a state funded provision for abortion on demand, are continually introduced into the catalogue by vocal and articulate minorities; while, at the same time, it becomes ever more apparent that even the limitless provision of free housing and services could not satisfy such basic human needs as the need for companionship and love.

Michael Ignatieff's brief but chal-



Benjamin Constant

MARY EVANS

lenging essay *The Needs of Strangers* breaks with the rather narrow focus of much recent literature. In exploring the question of what we need in order to survive as human beings he ranges beyond the tired agenda of welfare economics to examine the way the question of human need is articulated in religion, philosophy, art and tragedy. By concentrating on a few exceptional yet exemplary texts and events he succeeds in presenting the problem of human needs in an unusually profound way. In successive chapters he discusses the relationship between nature and society as Shakespeare articulates it in *King Lear*, the spiritual and bodily needs of man as conceived in the Augustinian tradition, the challenge to the whole notion of a religious need represented by the life and death of David Hume and his contemporaries' reaction to it, and the contrasting pictures of the relationship between human need and social organization presented by Rousseau and Adam Smith.

These are the varied yet wholly appropriate sources from which Ignatieff draws the material of his argument. Throughout his discussion he is concerned to show that the variety of human needs, which cannot always be reconciled with one another, reflect a peculiar condition of being in which

the historical changes wrought by man on his environment, and so at one level upon himself, continually produce new needs while eclipsing others. I speak of the eclipse rather than the extinction of needs for Ignatieff is sufficiently sceptical to wonder whether the secularized world-view of modernity can ever satisfy the need for transcendence meaning once provided by religion. The same scepticism is evident in his dismissal of the claims of revolutionary utopias to provide a form of life in which all the needs of man could, once and for all, be reconciled and assuaged.

In his attempt to extend the terms of the debate Ignatieff draws on the religious, philosophical and dramatic discourse of the past. How, though, does such discourse enable us to conceive more clearly the needs of the inhabitants of the modern, secular city? Ignatieff's title, *The Needs of Strangers*, draws attention to the fact that today we live surrounded by men and women whom we do not know as persons. The modern city is a city of strangers but strangers who remain dependent upon each other. The inhabitants of the city belong together but do not yet possess the language to make their belonging effective in a renewed sense of community. Ignatieff believes that this sense of community

Political freedoms

Benjamin Constant and the Making of Modern Liberalism
by Stephen Holmes
Yale University Press, £27.50
ISBN 0 300 03083 5

Professor Stephen Holmes argues in this book that Benjamin Constant is wrongly represented as a champion of what is fashionably called "negative liberty", and that he is properly to be understood as a theorist of progressive liberal democracy. He admits that there are seeming contradictions in Constant's writings, but he shows that much can be explained by the changing political circumstances through which Constant lived, from his birth in the Swiss canton of Vaud in 1765 to his death in France almost immediately after the July Revolution of 1830.

As a political philosopher, Constant owed much to the stimulus of Rousseau, and from the close perspective of Lausanne, he could see how much Rousseau's dream of reviving in the modern world the virtues of the republic of antiquity was rooted in the belief entertained by many Genevans that their midge oligarchic city-state was a living Christian Sparta. Constant had two objections to Rousseau's republican project that it could not be applied to any modern nation-state of normal size and that it was undesirable anyway, Sparta being no better than a warrior's monastery.

— civic belonging or fraternity — is perhaps the deepest unmet need of modern man. If community is to be more than a mere abstraction the quest for belonging must not override the differences between people and peoples in its impatience to achieve the universal community of shared humanity. Unfashionably but wisely Ignatieff accepts that in the modern world the independent sovereignty of nation states has become both the prime focus of men's sense of belonging and the surest means whereby the integrity of their lives can be preserved.

Woe betide any man who depends on the abstract humanity of another for his food and protection. Woe betide any person who has no state, no family, no neighbourhood, no community that can stand behind to enforce his claim of need.

Here as elsewhere Ignatieff's essay inevitably raises more questions than it answers, but in a way, unforgivingly thoughtful and suggestive, that can only enrich the impoverished discourse of present politics.

David J. Levy

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Protection rackets

Soviet Policy in Eastern Europe
edited by Sarah Melchior, Terry
Yale University Press, £27.50
ISBN 0 300 03131 9

The public Soviet warnings that forced Henry Kissinger to cancel his visit to West Germany last September were the nearest thing we have seen for years to open polemics between Moscow and its allies. Kissinger, coming from a Kremlin unseated by leadership succession and thought he could safely pursue rapprochement with Bonn even after the West German chancellor, Helmut Kohl, had mirrored Soviet displeasure by accepting deployment of cruise and Pershing II missiles.

This episode highlighted the differences between Soviet and East European interests even where the latter state claims to very existence to Soviet policy. Elsewhere in Eastern Europe

there is an underlying conflict between domestic and Soviet interests since toeing the Soviet line undermines regime legitimacy. And while Moscow ultimately can impose its interests by force, doing so is expensive materially as well as politically. Poland under martial law cost the Soviet Union an estimated \$3 billion. What Moscow seeks with increasing urgency is a more subtle balance between control and self-sustaining stability.

How the Soviet Union has fared in its search, emerges from this solid, informative and comprehensive volume. Bulgaria, the closest Soviet ally, is the only serious omission from the country chapters which deal with Soviet-East European relations either singly (Angela Szent on the GDR, Andrzej Korboński on Poland) or in pairs, a technique applied more successfully to Yugoslavia and Romania (William Zimmerman) than to Hungary and Czechoslovakia (Miri Valenti). Thematic chapters cover the economic (Paul Marz, John Hladky), military (Ross Johnson), ideological (Sarah Terry) and foreign policy (Barbara Haines, Raymond Garfield) dimensions of the relationship.

Between them these chapters provide a full and rounded picture of Soviet-East European relations, particularly in the seventies. Yet, despite

the title of the volume, there is little specifically on Soviet policy, let alone its formulation. Admittedly information on this remains scarce, but a chapter examining the public statements of the individuals and institutions involved in policy-making is valuable. As things stand the reader often has to deduce Soviet policy aims, achievements and problems from the pattern of relations described. This can be done with varying success in the different policy areas.

In the military field Soviet policies have been relatively straightforward and successful; still, puzzles remain. Why does Moscow show what Johnson rightly calls "remarkable" tolerance of Romania's "unacceptable" tolerance of the Warsaw Pact and its joint exercises (quite apart from its independent foreign policy stance)? The standard points about the country's secondary strategic position and authoritarian regime seem inadequate explanation. Easier to explain perhaps is apparent Soviet leniency on financial contributions towards the costs of "protecting" the region from the West. Such "protection" resembles that offered in China in the twenties and like the latter Moscow takes into account need and ability to pay. Thus the German Democratic Republic spends twice as

much on defence (around 6 per cent of its budget) as the other East European pact members who have resisted recent Soviet pressure to spread the burden more evenly (defence absorbs an estimated 15 per cent of the Soviet budget).

Soviet concern to improve the cost-effectiveness of its East European policy is also evident on the economic front. Even if the size of the Soviet trade subsidy to Eastern Europe has been exaggerated by western analysts amounting to \$14 billion rather than \$80 billion over the seventies – this still seems too high – Moscow, hence its recent demands for more high quality goods from Eastern Europe, and the cuts in cheap Soviet oil supplies to the region. Such pressures place additional strain on already hard-pressed economies and thereby on governments. Stagnation helps sustain high unemployment in Poland and has made popular grumbling more widespread and vocal in Czechoslovakia, Hungary, Romania and East Germany.

This situation presents Soviet leaders with "hard choices" which Sarah Terry narrows down to retrenchment, continuity, or allowing limited economic reform which could improve eco-

nomic performance but may also lead to political change. She argues that the Kremlin will have to go for the limited reform option. Even after reading this book, though, the likelihood of this happening remains as unclear as the finer contours of what Moscow deems acceptable change.

Perhaps this is due not so much to the shortcomings of what is an extremely useful volume as to the fact that Moscow has no consistent, detailed long-term policy on political change in Eastern Europe. If the past pattern of relations suggests anything it is that the Soviet Union reacts rather than anticipates developments in the region. The ideological and economic drift of the seventies was a reaction to the Czechoslovak crisis of 1968 just as the present indolence and anti-corruption campaigns are a response in part to Solidarity. So the safest prediction about Soviet policy is that Moscow will be surprised by the next East European crisis and will adopt policies to prevent its recurrence. In this respect the ways in which both superpowers manage their own "backyards" are strikingly similar.

Alex Pravda

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Finding moral rules

Ethical Persuasion and Truth
by J. J. C. Smart
Routledge & Kegan Paul, £22.95
ISBN 0 7102 0245 8
Moral Relativity
by David B. Wong
University of California Press, £28.00
ISBN 0 520 04976 4

Professor Smart thinks that if we were faced with the task of interpreting the language of a tribe, starting from scratch, there would be a class of sentences which we would sometimes want to paraphrase as having reference to the commands of God, sometimes as concerns with society's rules, sometimes with subjective attitudes, and sometimes as analogous to imperatives. This would be the class of moral sentences. He thinks that are not view that moral judgments are not

in fact an illusion produced by there being no one set of standards by which they could always be identified. But the only reason why Smart should think that this is the case must be that he has already concluded, because of a subjective reflection upon the meanings of moral expressions

which it is fashionable to denigrate, that this is what moral sentences mean. I myself find this view excessively "reconciliationist" and do not think moral sentences can be so ambiguous. Professor Smart also abandons a sharp distinction between moral and non-moral senses of words like "ought". Hence he can reject the rationalist view that we just intuit a connection between the truth of moral judgments and the factual statements that support them; on the grounds that it is not remotely plausible to say that we intuit the truth of such "non-moral" assertions as that we ought to keep a straight bat. This leaves him open to the *ad hominem* argument that if a philosopher who suggested that when we said that a man had taken the right road to Rotherham, his remark sometimes could be paraphrased as about the commands of God, sometimes as about society's rules, sometimes as about people's attitudes and was sometimes an imperative, he would be more or less off his nut.

Smart is well known as an act utilitarian – according to which the rightness of an action depends upon its own individual consequences. Here he (I think unwittingly) espouses the view I have called cumulative-effect utilitarianism (not rule utilitarianism) according to which I ought to play my part in various useful practices even though my doing so alone does no good at all. (Voting would be an obvious example.) He thinks that either scientific determinism is compatible with freedom or that it does not matter to

morality that it is not. It may be that he thinks that the precept "Love thy neighbour as thyself" ought to be amended to "Love all sentient beings as thyself". Perhaps he would even accept as an addition: "Love thy neighbour's country as thine own".

Professor Smart's book suffers from too much eclecticism, but is far more lively, confident, humorous, succinct, interesting and sensible. I wholeheartedly recommend it. Professor Wong argues that, though moral judgments are "objective" in that there are moral facts, they are nevertheless "relative" in that when two moral judgments (for example, the judgments of an old-fashioned Maori and an old-fashioned old Etonian that eating people is or is not wrong) conflict, both can be true. Wong also thinks that absolutism (the opposite of relativism) implies that there is a single "true" morality. Because he thinks that to say that someone ought to do something is to say that he would be breaking one of an adequate set of rules applying to him if he did not do it, and because he thinks there can be more than one set of adequate rules, he maintains that there are a number of true moralities. Wong's view has the following difficulties: (a) Relativism is false, for if one person says that a man ought to do something and another person denies something, what they say is inconsistent. (b) Wong's own analysis is not relative, for the judgment that someone would be breaking one of an adequate set of moral rules applying to him is incom-

patible with someone else's judgment that he would not be breaking such a rule. (c) There could be more than one adequate set of rules even if relativism were false, for the judgment that one set of rules is adequate (or one way of life is good) is not even apparently inconsistent with the judgment that a different society's different rules are also adequate (or a different way of life also good). (d) To think that the fact that different societies' different rules can each be adequate is incompatible with there being a single true morality is like thinking that the fact that not all rivers flow in the same direction is incompatible with their being one single true law of gravity. (e) Wong's analysis is in any case wrong, because some actions, for example burning babies alive, would be wrong even if they were not prohibited by an adequate set of moral rules, and because it could be that one ought to keep even an inadequate set of moral rules, if having them was better than having no rules at all.

Though Professor Wong's book is often interesting, it is expensive, insufficiently closely reasoned, and sometimes confused. I would not, however, recommend anyone not to read it.

Jonathan Harrison

Jonathan Harrison is professor of philosophy at the University of Nottingham. His next book, "A Philosopher's Nightmare and Other Stories" will be published shortly.

Constant was impelled to develop his critique of Rousseau's republicanism at length when it came to be taken up by Robespierre and others as a theoretical justification for their revolutionary excesses. Constant focused his attack on the endeavour to revolutionize men's conception of freedom: replacing the idea of "modern liberty" – something men could and should enjoy with that of "ancient liberty" – something which had its place only in the lost world of antiquity. Invited to surrender modern liberty for the sake of ancient liberty, men were being offered a meretricious illusion in place of a practical objective.

Ancient liberty as Constant explained it, meant direct participation in the government of one's own city-state, it was "whatever assured citizens the largest share in exercising social power". By contrast, modern liberty was "whatever guarantees the independence of citizens from their government". In the ancient republics, the more a man exercised his political rights, the more free he believed himself to be. In the modern world, men found their freedom in doing what they want to do, subject to the law alone, enjoying the rights to express opinions, to dispose of property, to come and go, to worship and assemble as they pleased.

Professor Holmes points out that Constant's emphasis on modern liberty as freedom from the constraints of government dates from the revolutionary period of the 1790s, when the theory of ancient liberty was being used to bolster up a despotic populist state with fraudulent invocations of the sovereignty of the people. After the Restoration of 1815, when Constant became active in French politics as a member of the liberal constitutionalist opposition to a reactionary regime, he was no longer content to define modern liberty as the right to be unconstrained in doing what you want to do; he went on to emphasize what he spoke of as the "final" element in modern liberty: "the right to exert influence on the administration of government, either through the election of some or all of its public functionaries or through remonstrances, petitions and direct liberty".

For this reason "negative liberty" is an altogether inadequate and misleading way of expressing what Constant meant by modern liberty; indeed Constant himself made this abundantly clear when he made the distinction between modern liberty in civic form – the right to freedom in private, social and economic activities – and in its political form – the right to vote.

Professor Holmes reminds us that Constant did not wholly repudiate Rousseau. At the close of his famous lecture of 1819, on *Ancient and Modern Liberty*, which is an almost unbroken attack on "ancient liberty", Constant said: "we must learn to combine the one type of liberty with the other". What he clearly had in mind in saying this was that the element of political participation, so crucial to ancient liberty, should be added, in a modified form, to our understanding of "modern freedom".

It was a plea for a "political" to be added to the "civil" for the democratic to be added to the liberal. This is not to say that Constant was ever a democrat in any sense which Rousseau – or the ancients – would have understood democracy: he simply favoured the democratization of representative or parliamentary government, the enlargement of the suffrage. In this respect, Constant was bolder than later nineteenth-century liberals such as Tocqueville and J. S. Mill: he expressed no fear of the tyranny of the majority. Professor Holmes can rightly say that Constant did not see social levelling as a threat to culture or individuality. Constant had no more yearning for an aristocratic ethos of the *ancien régime* than he had for the republican virtues of antiquity; he had a robust confidence in the common sense of the ordinary man, a confidence he must surely have owed to his early acquaintance with the tranquillity of Switzerland rather than to his own experience of popular unrest in France.

Maurice Cranston

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Jean-Jacques Rousseau's *Emile, or on Education* has been published by Basic Books at £10.50 in a new translation by Allan Bloom. This is the first new translation of the work in more than seventy years.

BOOKS

Here's richness!

Language and Class in Victorian England
by K. C. Phillips
Blackwell, £19.50
ISBN 0 631 13689 4

"Let him consider", Bulwer Lytton advised the novelist who wished to write about upper-class life, "that dukes, and lords, and noble princes eat, drink, talk, move exactly the same as any other class of civilized people."

Lytton was annoyed at the way novelists tended to portray the everyday behaviour of the upper classes as artificially formal whereas in reality, he insisted, they were exceptionally relaxed and familiar. No doubt he and his aristocratic friends knew what he meant, but his well-intentioned advice must have been incomprehensible to virtually everyone else. If it had been followed, the Victorian novel, for a start, would have collapsed. Take away the belief in distinctive codes of behaviour handed down from the top of a social hierarchy and English novelists would have little left to write about.

There would also be no need for a study like K. C. Phillips' *Language and Class in Victorian England* which demonstrates convincingly that the English not only believed that someone in Lytton's position ate, drank, talked, and moved quite differently from other people, but spent an enormous amount of time and energy trying to define the precise nature of the differences. They still do. In this respect, one of the most revealing events of postwar, post-welfare state Britain was the publication of A. S. C. Ross's theory of U and non-U language and the subsequent popularization of it by Nancy Mitford. Whether denounced as snobbish and reactionary, or praised as a true perception of English character, it clearly unnerved its many commentators. Thirty years on its relevance might have been considered exhausted, yet here it is again, referred to frequently by Phillips to prove the continuing English obsession with linguistic class indicators.

The proof is overwhelming, and *Language and Class in Victorian England* is packed with fascinating evidence of just how complex the language of class can be, though what we make of it depends on recognizing that Phillips is concerned almost entirely with symptoms rather than causes. Although the period of time covered by the book saw the rise and consolidation of the language of class in Britain, there is no attempt to discuss this

crucial phenomenon historically. The book is also heavily weighted in favour of upper-class usage, partly to illustrate the argument that it is here that continuity is most observable, and partly because of the greater availability of evidence which, throughout, is drawn mainly from fiction. Some additional material is taken from etiquette books and memoirs and, for working-class language, from studies by social explorers. The middle classes as such are ignored, curiously so given the prominence they attained in the Victorian age and the contempt with which they were often regarded. Lord Melbourne is quoted as saying: "The higher and lower classes there's some good in, but the middle classes are all affectation and conceit and pretence and concealment." All the more reason, one might have thought, to give them a lot of attention in this particular context.

If the social implications of class mobility are not spelt out, they are here none the less and Phillips is particularly enlightening on the thirty or so years preceding Victoria's accession when, as he says, so many words began to take on "ironic overtones" which they had not carried in the eighteenth century. "Gentle" is offered as typical. Less familiar is the use of "respectable" to mean "rich" and therefore set in opposition to

"decent": later in the century the two words would often be used as virtual synonyms. Yet one meaning did not entirely supersede the other. Alice Vavasor in Trollope's *Can You Forgive Her?* is quoted as being annoyed when her engagement is described as "very respectable". She is not shocked at being associated with the boring middle classes, but concerned that she might be regarded as marrying for money.

This small example is characteristic of many in *Language and Class in Victorian England* which should be carefully noted by literary critics. Another is the now slangy adverbial phrase "don't half". When Pip is congratulated on the ease with which he has turned into a gentleman he says, "I didn't half like it", meaning that he disapproved: it is perhaps a neat illustration of the trouble Dickens took to establish the period detail of *Great Expectations*. The importance attached to land and property led, inevitably, to refinements of language which remain pertinent today for even informed readers of Victorian fiction. Hands up all those who can explain the stages by which the word "country" became "county". And once that linguistic puzzle has been untangled it would be worth trying to define the class significance of describing one's home as a "residence". "place", "park", or "grange".

The class distinctions indicated by the terms U and non-U were as real to the Victorians as the New Elizabethans. It mattered whether you ate "lunch", "dinner", or "supper"; when it was right to defer to someone as "sir"; whether a "lady" is a "woman" and whether the behaviour of a "gentleman" could be suitably described as "gentlemanly". The complications surrounding the Victorian uses of "Miss", "Mrs", and "young person", "lady", or "woman", suggest that modern feminists should be praised for simplifying the language rather than abused for defacing it.

Of course, behind much of the Victorian linguistic uncertainty was the advent of "democracy", itself a word that was used in a wide variety of different ways. It eventually replaced a number of words to describe class and status which were equally complex, even if in retrospect they sound enviously straightforward. Bored by lack of company, Disraeli could observe: "London quite empty, only... a million of vulgar."

Peter Keating

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"The Old Buccaneer", an illustration from *The Drawings of Mervyn Peake* (Allison & Busby, £5.95).

Matters of poetic judgment

Alexander Pope, the Genius of Sense
by David B. Morris
Harvard University Press, £20.00
ISBN 0 674 01522 3
Pope's Imaginative
by David Fairer
Manchester University Press, £24.50
ISBN 0 7190 1080 2

"Judgment", wrote Hobbes, "subtly distinguishes among similar objects while fancy pleasingly confounds dissimilar objects." There could be no more appropriate indication of the differences of approach adopted in these two new studies of Pope.

David Morris's book, *Alexander Pope, the Genius of Sense* is a work of judgement which concentrates on illuminating the several layers and nuances of meaning contained in the many deceptively familiar subjects treated that abound in Pope's verse. Terms such as virtue, sense, order, and most importantly, of all, judgment itself. David Fairer's book, *Pope's Imaginative*, confounds such fine distinctions, emphasizing instead the heterogeneity of Pope's imagination with its subversive tendency to jumble the most dissimilar objects together in

a pleasing poetic chaos. Of the two, Morris's book is undoubtedly the more important work, and is indeed one of the most significant studies of Pope to appear in recent times. The result of some twelve years' labour, it takes as its starting point the kind of deprecation of the "prosaic" characteristics of Pope's verse indicated, for example, by Wordsworth when he complained of Pope's "laborious attempts at discrimination".

Morris argues that the art of making and conveying fine distinctions is at the heart of Pope's achievement in both the satires and philosophical poems. His poetry operates in "a manner analogous to the painstaking discriminations of Locke's judgment with its careful distinctions between apparently similar ideas". In a chapter on "Civilized Reading" Morris directs our attention to the submerged judicial metaphors that frequently underlie Pope's complex as he weighs and balances conflicting ideas. Elsewhere, continuing the judicial metaphor, he considers the punitive aspects of Pope's satires, recalling Pope's remark to Arbuthnot that "to reform and not chastise, I am afraid, is impossible". Morris reminds us that the barbarous penalties and tortures exacted by eighteenth-century "justice" were carried out with a public display that was intended to have an exemplary and deterrent effect. The chastisements inflicted by Pope's satires were, likewise designed to operate upon victim and onlooker alike. And when we recall that Joseph Crook, one of Pope's victims, was sentenced to stand in the pillory, to have both his ears cut off, to have both his nostrils slit and seared with hot iron and to be imprisoned for life, his treatment by Pope seems relatively mild.

Pope, as we know, was continually revising and correcting his works and Morris sees this process of revision as symptomatic of his constant emphasis upon refinement and improvement in both the thought and expression of his poetry. Moreover, Pope does not confine this process of revision to himself as author, but also apparently requires it of his readers. In a chapter entitled "Re-Reading Pope" Morris takes up such comments as Swift's remark that he was "in some places forced to read twice"; the *Essay on Man* before fully grasping its meaning. The deceptive clarity of Pope's aphoristic style in the *Essay* veils a number of ambiguities and paradoxes which demand careful reconsideration. "I want to know your opinion of it", he told Caryll, but only "after twice or thrice reading." This is a subtle and closely argued book, full of valuable insights. My only serious reservation concerns Morris's chapter on "Property, Character, and Money", which, strangely shows no awareness of Howard Raskin-Hill's excellent studies in this area in *The Social Milieu of Alexander Pope* (1975).

After Morris's clear and persuasive analysis of Pope's techniques for making fine distinctions, it comes as something of a shock to read in Fairer's introduction that Pope has little time for such subtleties. "Pope does not distinguish between

the terms 'fancy' and 'imagination', writes Fairer, and goes on to insist that we must break down our own sense of the distinctions between such words as "fancy", "fantasy", "imagination" and "invention" if we are to understand "the age of Pope". According to Fairer, Pope's notion of the imagination was "a very large loose and baggy one"; it was a chameleon-like quality, creative but chaotic, inspired but also mad, vague, cloudy, paradoxical. He admits that he runs the risk of "appearing to make the notion of imagination a nebulous one", and nebulosity is indeed a problem with this book. Fairer concentrates on four poems, *The Rape of the Lock*, *Eliza to Abelard*, the *Epistle to a Lady* and *The Dunciad* which he considers "four of Pope's most visually exciting poems". Yet his analysis of Pope's visual imagery is curiously limited with the complete omission not only of any reference to Newton's *Opticks* but also to the important scholarly studies, by Marjorie Nicolson and her collaborators, of the influences of the theories of Newton and Locke on the visual imagination of Augustan poets.

Fairer's emphasis throughout is on the subversive and potentially chaotic powers of the imagination. The most interesting sections of the book are those in which he examines its satiric dimension, comparing the transformations of Milton's Satan with the insinuating metamorphoses of Pope's imagery. Thus he comments on the tempting curls of Belinda's doomed lock: "The fact that Pope stresses the curling quality of the lock suggests that we are meant to sense its intriguing Satanic character".

Each chapter of Fairer's book is introduced by several pages of "parallel" text from Renaissance and seventeenth-century texts. These are offered not as sources for Pope's ideas, but rather, "as examples of the various conventions of thought and expression within which he is working". Here again a certain nebulosity is apparent. The principles underlying the selection of these texts are not self-evident, and Fairer's treatment of them is often perfunctory. His main intention is to identify Pope's poetry with certain pre-existing literary traditions. "For too long", he writes, "the Augustan age has been somewhat set apart from earlier periods of English literature". But when considering the work of a poet as diverse and instinctively allusive as Pope the matter of parallels must be approached with a good deal of tact, and with an explicit recognition of the many acknowledged sources, both ancient and modern, literary and historical, which already crowd together in his lines.

The book concludes with Byron's claim that he found "more imagery in twenty lines of Pope than in any equal length of English poetry". Elsewhere Byron declared that there could be no sign for the taste of any period than a tendency to depreciate Pope. These two books show how very different indeed our modern appreciations of Pope can be.

David Nokes

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Failure of nerve

Dances of Death: The Group Theatre of London in the thirties
by Michael Stedell
Faber, £18.50
ISBN 0 571 13321 5

Any student of the theatre will be aware of the vital experiments in theatre in the years between the two wars in Germany, the Soviet Union, France and Ireland. By contrast, our legend of British theatre in the thirties is that of a West End stocked with Cowards and Cochrans, with witty light comedies and revues remembered affectionately by surviving great-grandparents, while the old Holborn Empire kept music-hall alive until the blitz changed us all.

If the student of drama is also a student of literature he will also recall a number of printed playscripts - *Sweeney Agonistes*, *The Dog Beneath the Skin*, *The Ascent of F6* among them - words by distinguished authors and worthy of respectful attention, but not played now, not much read even.

Dances of Death helps to correct our view of British theatre in the thirties, though it does not attempt to suggest that the work of the Group Theatre, founded in 1932 by Rupert Doone, Ormerod Greenwood and others was, or ever promised to be, as important or as central as the activities of Piscator or Brecht, Stanislavski or Meyerhold were in Germany or the USSR between the two wars. Indeed it goes a long way towards justifying Edward Craig's pessimism in a letter to Greenwood dated 1935, after Craig had refused to work with the group: "What I wanted to learn," writes Craig, "was whether the Group Theatre had an idea and a plan to carry it out with; and I can see neither."

Nevertheless, for Auden and Isherwood, for MacNeice and Spender and, for a brief period, T. S. Eliot, the Group Theatre was the best vehicle available for new and exciting experiments in drama and poetry. This was the period when, it was possible, as Ashley Dukes to declare the verse play "the dramatic language appropriate to the theatre of modern life" and whether tragic or comic, "the form of the immediate future". But it was never just a matter of the spoken word. Doone was a talented dancer and choreographer, Herbert Murrill and Benjamin Britten provided music for an experience which was unique in its time in attempting a unity of the word, the movement of the human body and music. There was an extraordinary depth and breadth of talent among the members of the group - actors, poets, directors, musicians, dancers, poets, scholars and it may have been that if there had been someone as far-sighted as Craig to overcome the fiasco-prone tendencies within it, he might have provided focus and direction for an age of drama of the greatest social as well as artistic importance.

But there was always something wrong, and it was not just the lack of a Craig or a Brecht to direct things. There was a critical failure of nerve in the whole generation, a self-destructive air which is well enough suggested by the Auden play which gives its title to this book. Or perhaps the destruction wasn't complete enough to produce something really new.

Michael Stedell records well the hopes and experiments, the achievements and the eventual failure. In particular he provides many insights into the mutual influences of left and right, especially of Auden and Eliot, their common interest in the hijacking of popular forms like music-hall, revue and musical comedy for serious purposes. In 1935 Harold Hobson expressed Auden's aim: "He takes the most frivolous of entertainments, the musical comedy, and transmits for the serious drama... It is an extraordinary achievement." Not an extraordinary one, though. Both Eliot and Auden waged their theatrical art on a revolutionary change in their audience and both lost, with the result that the plays remain largely specialist interests. A full account of the reasons for this would involve the political and social history of the last fifty years, and it is no surprise that Professor Stedell does not attempt to go into that.

David Ward

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BOOKS

Class struggle

The British Marxist Historians: an introductory analysis
by Harvey J. Kaye
Polity Press, £22.50 and £7.95
ISBN 0 7456 0015 8 and 0016 6

It is strange that Marxism has attracted so few historians or any calibre in Britain, and that they have had so little effect on the profession in general and the kind of history it writes. The conventional Whig-Liberal attitude to history, and not just British history, has perhaps been too strong for them; also the fact that easily the most influential left-wing historian of the past fifty years, Richard Tawney, was firmly wedded to a non-Marxist Christian socialism.

However, Harvey Kaye now offers a useful if rather pedestrian survey of the five principal British Marxist historians of recent years: Maurice Dobb, Christopher Hill, Rodney Hilton, Eric Hobsbawm and E. P. Thompson. His reserves, who did not make the first team, are George Rudé and V. G. Kiernan; I would have been inclined to add John Saville myself. His method with each is the same: a brief sketch of the subject's life, followed by a résumé of his more important work, ending with an appraisal of his Marxist methodology. It is not a very lively method, and it has the effect of levelling out into a dull uniformity some of the most brilliant works of history produced in this century (as well as some of the dullest).

The impression we are left with - no doubt unintentionally - is that these men have exercised much influence on their colleagues and on an informed readership, when they have been least Marxist. Also, though prior to 1956 they mingled professionally and socially in "The Historians' Group" or the [British] Communist Party, they have never constituted a "school". In the sense in which we think of the *Annales* school. In 1956 or soon afterwards all of them except Hobsbawm left the party, severing even this tenuous organizational bond, and they stand now as a collection of individuals with some similarity of outlook. They never seem to have exercised much power or influence within their colleges or universities, except for Hill, perhaps, and Master of Balliol, Oxford, who was led violently with Warwick University, and was defeated; Hobsbawm has been active all his life in adult education. They were never entirely in control of *Past and Present*, which was originally seen as a Marxist historical journal.

Paradoxically it is Hobsbawm, the only one to remain in the party, who has most distanced himself from Marxist historical methodology and Marxist economic determinism. Also, though he shares the "serious reservations" of the others in dealing with twentieth-century history, his *Age of Capital* has taken him up to 1875, and the *Age of Empire* will take him further; so presumably will the later volumes of his *History of Marxism*. Moreover, he is the only one who has lent his services to the cause of the Labour Party - except for Thompson's narrow-based and specific commitment to the Campaign for Nuclear Disarmament. In fact Hobsbawm is the most broadly-based of this group. In more ways than one; under his pen name of Francis Newton he is the best jazz critic England has produced; and as he himself suggests, his Jewish-Viennese origins have probably given him more extensive cultural base, and made him easier, more relaxed in his relations with Marxism, than always a very continental phenomenon.

So, although Hobsbawm and Rodney Hilton are both concerned with proletarian radicalism, we feel that Hobsbawm is much more critical in his approach. That does not mean to say that Hilton is wrong; on the contrary, his work on the medieval peasantry has done much to correct an unfortunate though understandable bias towards the upper strata in the feudal system. But except for his preoccupation with "class struggle", (more propounded as "class interaction"), it would be difficult to identify most of his work as Marxist. This is even more evident in



The Duke of Gloucester drilling his company of child guards c1698, reproduced in *Pillars of Monarchy: an outline of the political and social history of royal guards* by Philip Mansel (Quartet, £18.50).

the case of Christopher Hill. I doubt if even the comrades took very seriously his early squib on *The English Revolution 1640*, which was a veritable parody of orthodox Marxist historiography, and in his central research work on puritanism and the Great Rebellion his stance is best described as radical Whig. His textbooks, interestingly enough, are much more left wing, but even then I would hesitate to describe them as Marxist. In him the nonconformist tradition is dominant, as it is in the British left wing as a whole.

Professor Kaye obviously has difficulty locating a lowest common denominator for these very diverse and independent men, except for the fact that they all believe in "the historical process". But none of them has been very successful in isolating or defining "class", not even Thompson, whose approach has been more subtle than most. I think Kaye tends, naturally enough, to exaggerate their influence, especially in America. (I doubt, for instance, if Eugene Genovese needed to take his ideas from Britain.) He is not very helpful, either, on what we may call the "succession question": in other words, how far the British Marxist historical tradition being carried down to the next generation? We are guided through a sort of neither-nor of Marxist exegesis, in which the work of these men is appraised, often rather shyly, according to its conformity with first principles (where it is possible to agree on them), but it is not made clear how far they have transmitted their beliefs and their approach, as distinct from their professional methods, to their students.

For instance, none of those who collaborated with E. P. Thompson to produce *Albion's Fatal Tree* in 1975 adopted a specifically Marxist approach to the social problems of eighteenth-century England. Nor do any of Hill's students, with the possible exception of Brian Manning, appear to have followed his line. Robert Gray's work on Edinburgh obviously derives from Hobsbawm's on the "labour aristocracy", but his Marxism is far from orthodox. I would have expected Kaye to examine the contributors to the various *festschriften* these men have received; in the case of Hill scarcely any of them could remotely be described as Marxist, and most of them would reject the label with irritation, even horror. The continuation of the tradition, if there is a tradition in this strict sense of the word - which this book does not demonstrate - seems to focus on the journal *History Workshop*, on its feminist and diffused shop, on its left preoccupations. There is certainly no sign of a younger historian of the calibre of Hobsbawm or Hill to whom the torch can be handed on, and the tradition would seem to have lasted not much more than a generation.

J. P. Kenyon

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Revolt of the clans

The Jacobite Clans of the Great Glen 1650-1784
by Bruce Lenman
Methuen, £14.95
ISBN 0 413 48690 7

Those familiar with Bruce Lenman's *The Jacobite Risings in Britain* (1980) will know that in his new book they are unlikely to find escapist solace in romantic meanderings about the "prince in the heather". Mr Lenman argues persuasively that Jacobitism should not be considered in isolation as something weird and wonderful, nor explicable on rational grounds. Rather it should be seen in the wider context of British history as reflecting the sectional interests and ambitions of those individuals and groups who supported it; and in particular after 1714 reflecting the wide range of grievances felt against the Hanoverian regime in which power was monopolized by selfish cliques of Whig politicians.

For those excluded from power, their interests systematically ignored or attacked, Jacobitism at times seemed the most effective way of expressing their alienation. The manipulation of the 1707 union of parliaments in England's interest meant that bitterness against the regime was more widespread in Scotland than south of the border; and for Highlanders the regime was doubly alien, for they found themselves subordinate to Lowland interests which were in turn subordinate to English interests. The strength of Jacobitism in Scotland tells us more about the selfishness and blundering incompetence of its rulers than about the country's innate backwardness or propensity for violence.

Yet though Mr Lenman presents a realistic assessment of the motivation of Jacobite leaders as men who combined unscrupulous ambition for power and patronage (which leaves little to choose between them and the despised Whigs) with genuine grievances, he does not insist that everything must be explicable in terms of self-interest. Many of the chiefs who joined the '45 saw it from the start as a crazy undertaking almost bound to end in disaster, but reluctantly accepted that it would be dishonourable to turn their

reasonably educated clergy in the Tridentine mould while the process of changing the ideas and practices of their congregations continued with only partial success down to the Revolution.

Rural communities remained greatly attached to collective religious practices, and to the relatively egalitarian organizations that sustained them; confraternities, vestries, abbots, and their attendant processions, church fairs and festivities, were an integral part of the life of the rural population in which material and religious concerns blended completely. While the desire of the ecclesiastical hierarchy to separate the profane from the sacred, to introduce individualistic forms of devotion, and to abolish or reorganize communal organizations under their own auspices, could make heavy work of the rural population, in the countryside such objectives foundered on an unyielding popular culture.

Through the contrast between town and countryside it is possible to pick up yet another strand in Hoffman's analysis. This deals with the efforts of the urban upper classes to legitimize their position and to enhance their dominance over the predominantly rural lower orders. The ideological vehicle for this purpose was an ethic which "condemned idleness, sexual licence, insubordination and disorder, a morality that extolled diligence, abstemiousness, obedience to authority and social and political order"; the practical mechanism for its dissemination was the parish clergy. Ironically, as Hoffman shows in a last chapter replete with paradox, to the extent that the lay population succeeded in drawing the latter away from the communal world in which they had been enmeshed, they also succeeded in exacerbating the tensions between the priests and their congregations. The slow transformation of clerics who at one time were barely distinguishable in lifestyle and social attitudes from their companions into a group set apart by dress, education and by their social

backs on Prince Charles Edward when he arrived and appealed in person for support.

The Jacobite Clans of the Great Glen concentrates on the fortunes of the Frasers, Grants, MacDonalds and Macphersons, whose territories lay in or adjacent to the great fault-line from Inverness to Fort William. The rivalry of these clans was moderated by common interests - in helping each other resist encroachments by other clans, and in protecting clan interests against central government. By joining the '45 chiefs betrayed the interests of their clans. The immediate result was disaster for both clansmen and chiefs.

The latter, however, eventually recovered - largely through a further betrayal of the former. Hard-headed chiefs saw the only way back to power and influence lay in serving the regime and thus buying back forfeited lands and titles. But what had they to offer to purchase such favour? The answer lay in the desperate need of the British army for men in the Seven Years' War and the American War of Independence. By offering up their clansmen in Highland regiments as a blood-sacrifice to British interests, from America to India, the former Jacobite chiefs won acceptance by the British political establishment.

The story is both fascinating and tragic, and the book proves triumphantly that substituting a realistic approach for a romantic one need not entail abandoning lively writing and dramatic incident. The author is an enthusiast, and this shows on every page. Indeed on occasion enthusiasm is overdone, leading to wild statements such as the assessment of Macpherson of Cluny's system of "blackmail": "It was a protection racket of course, but there so are all insurance companies." Insurance companies that burglar your house if you don't insure with them are in reality pretty unusual! Red herrings divert the author at times. Sandy MacGillivray, chief of the Creek Indians, is a fascinating character - but not by any stretch of imagination relevant. But over-enthusiasm is a fault most readers will happily excuse. This is not only a highly entertaining book but an important one.

David Stevenson

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aspirations, had unintended and unforeseen consequences. Moreover, and this was the ultimate paradox, as the lesser clergy began to achieve a sense of identity and self-esteem they themselves began to chafe against the privileged position of their superiors, and in 1789 far from defending the existing hierarchy many made common cause with those who wished to destroy it.

Hoffman's extension of his analysis of the counter-reformation into the eighteenth century is truly imaginative. It is also, as he himself recognizes, unusual, potentially provocative. Given this, the references to the influence of the Enlightenment are disappointingly meagre and may leave him open to the criticism that some of the shifts in at least in part, to factors to which he pays inadequate attention. Nevertheless, there is no doubt that Hoffman's study will improve our understanding of forces which both moulded the ancient regime, and contributed to its demise.

It is indeed the great merit of this study that it tackles major themes with directness and simplicity. Without forsaking the need for nuance and qualification, Hoffman displays an impressive ability to weld detailed information (including the odd village tale) into an absolutely clear general interpretation. Although his familiarity with extensive archival material is apparent, and he includes a couple of technical appendices on the use of wills and criminal records, he writes in lucid and unpretentious fashion. Remarkably, despite the variety of themes encompassed, the length of the period surveyed, and the length of the book, it is in fact an object lesson in how to present important and subtle ideas concisely and in a language which makes the past accessible to the widest possible readership. For this reason alone his book will deserve its audience.

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BOOKS

Dancing cells

The Cytoskeleton: cellular architecture and choreography by Alice B. Fulton
Chapman & Hall, £3.25
ISBN 0 412 255 103

Cells have shapes. That statement sounds facile, but it underlies one of the most active areas of research in cell biology. What is it that gives a special and characteristic shape even to so small a cell as the red blood cell?

It is now about ten years since biochemical journals were first enlivened by the spectacular pictures of filaments within individual cells, detected using antibodies to their protein constituents. In fact, filaments had been seen before in the electron microscope, but their extensive organization throughout the cell had not been appreciated. They were clearly prime candidates for providing the structural basis of cell shape and quickly became known as the "cytoskeleton". As the field has developed it has started to be given more than a passing mention in undergraduate courses and textbooks, and Alice Fulton's book aims to provide a fairly detailed introduction to

the subject for final-year undergraduates and graduates.

The attention given by researchers to the cytoskeleton is not simply because of its presumed structural function. A great number of biological processes involve changes in shape or even sustained movement by cells; and in all of these, cytoskeletal filaments are implicated. Gross cell movement is most dramatically fast in amoebae and in certain white blood cells which can move out of blood vessels towards sites of bacterial infection; it also occurs in an extremely precise manner when cells of the early embryo take up the positions necessary for development of the fetus. Movement within cells is particularly impressive in nerve cells, where there is a two-way traffic of cellular constituents along filaments between nerve terminals and the cell body (the position of the nucleus and associated cellular machinery): this movement occurs over distances which can be metres long in a large animal such as a giraffe.

Another dramatic process that involves the cytoskeleton is mitosis, the process of cell division in higher cells. After the chromosomes have been duplicated they line up at the centre of a specially formed cytoskeletal structure, the spindle. Each pair of duplicate chromosomes then separates to the opposite ends of the spindle in a way that seems to be organized - Fulton aptly uses the word choreographed - by the cytoskeletal filaments. Other components of the cytoskeleton are then involved to form a furrow around the waist of the cell. The furrow deepens and finally completely cleaves the cell into two daughter cells.

each with a complete set of chromosomes.

One of the problems in writing about the cytoskeleton is that as an active research area it is incompletely understood - even the rather extensive knowledge of the structure and biochemistry of the cytoskeleton of the red blood cell fails to explain that cell's characteristic shape. Another major difficulty in presenting a clear account of the cytoskeleton is that it actually comprises three separate filament systems which in most cells are present simultaneously. Most researchers tend to concentrate their efforts on one or other system with only occasional sideways glances at the others. Alice Fulton's book is exceptional in attempting an integrated account of the three filament types, and the sections on what she calls the architecture and choreography of the cytoskeleton can certainly be recommended - and not just to students.

I am less happy, however, about the chapter on the protein constituents of the different filaments. Although this is a difficult area - discovering new cytoskeletal proteins is still a growth industry - two authors have succeeded in finding some order among the chaos, but their insight has not been incorporated or even referenced. Nevertheless, this is an accessible and concise introduction to a lively field.

Jonathan Bennett

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Air waves

Telecommunication Principles by J. J. O'Reilly
Van Nostrand Reinhold, £11.50 and £5.75
ISBN 0 442 30591 5 and 320592 3
Telecommunications Engineering by J. Dunlop and D. G. Smith
Van Nostrand Reinhold, £24.00 and £13.50
ISBN 0 442 30585 0 and 30586 9

The sale of shares in British Telecom has aroused popular interest in the telecommunications system in this country, interest which will doubtless actively continue. The very size of the company is staggering, with over a quarter of a million employees, and is yet one more facet of the major effect that telecommunications is having on our lives. Telephones and broadcast television and radio receivers are by now almost as common in people's homes as running water and electricity. With computers, video recorders and laser disc players, access to technology of an extremely complex and physically advanced nature is obtainable by the man in the street for a very modest outlay. These are part of the province of the electronic engineer, a species characterized by the need to know more and more about lesser and lesser things, and by the necessity of change from an obsolete technology to a new one at least every ten years.

Principles, however, seem to be less transitory, and in *Telecommunication Principles* Dr O'Reilly presents the mathematical basis for electronic communication systems in a concise yet clear form. Clear, that is, to one with a scientific bent and more than a passing acquaintance with mathematics. Such a reader would find the first chapter of great interest in introducing the concepts of communications signals, channels and networks with some illustrations of present-day systems. After that, the book concentrates on its main aim of being an undergraduate text for

electronic engineers before any final-year specialization. In the context of this series of Tutorial Guides in Electrical Engineering, the marginal notes are mandatory: though sparse, their use seems at times to be somewhat artificial, as the notes could frequently be incorporated directly in the nearby text, or alternatively relegated to footnotes or reference lists. In only one or two cases, such as the illustration of the delta function, does the method seem justified. Overall, however, the text and diagrams are admirably clear, and the wide margins leave room for students' own marginal notes.

Telecommunications Engineering is much more of a sourcebook. About three times as long, it doesn't waste time on introductions, going straight into the mathematical frequency and time domain signal analysis, which forms the basis for the detailed discussion of analogue and discrete modulation and noise theory that follows. The middle third of the book concentrates on the various theoretical aspects of microwave transmission systems (chapter eight is a descriptive interlude on microwave generating devices), and later chapters cover the theory and engineering principles of telephony and television. Finally, there is a short discussion of optical fibre communications, more in the form of a postscript to bring the subject to the reader's attention.

Both books are presented as students texts, with problems at the end of each chapter (except the last, in each case - perhaps the students are not expected to finish the course?). Dunlop and Smith cover much more than a single series of lectures, and their book could be the basis of an entire final-year specialization in the subject. They present an encyclopaedic content list, greatly increasing the usefulness of their book as a reference work far beyond undergraduate level. It should prove its worth over several years, especially to the teacher putting together his own course on telecommunications.

P. J. R. Laybourn

P. J. R. Laybourn is reader in the department of electronics and electrical engineering at the University of Glasgow.



Training sailors to use hydrophones as U-boat detectors in 1917. From *Wellman Hackman's Seek and Strike: sonar, anti-submarine warfare and the Royal Navy, 1914-54* (Her Majesty's Stationery Office, £15.95).

as non-crystalline substances and are known to influence many of their properties. Amorphous materials, which require special methods for their preparation - for example, "spinning" at a million degrees per second - and which have considerable potential because of their unique magnetic, mechanical and anti-corrosion properties, are described in a final chapter. The underlying physics of amorphous materials, as currently understood, is made clear. As is often the case in science, fundamental investigations frequently lead to the discovery of new effects and suggest novel applications. This is certainly the case in this field. Apart from the photocopying process commonly known as Xerography, which uses an amorphous selenium alloy as a photoconductor,

E. A. Davis

E. A. Davis is a professor of physics at the University of Leicester.

BOOKS

Look into my eyes

Looking and Seeing: the role of visual communication in social interaction by Derek R. Rutter
Wiley, £18.00
ISBN 0 471 90415 5

In his 1967 paper, "Some functions of gaze direction in social interaction", Adam Kendon describes how he filmed seven conversations and then analysed them in great detail, paying particular attention to when and where the conversationalists looked each other in the eye. Kendon argued that someone finishing speaking looks up to let the other person know he or she has finished, whereupon the new speaker accepts the role of talker by looking away and starting to speak. If the speaker finished but did not look up, there was generally a noticeable pause; people react to visible signs, not to silence.

Kendon used an exploratory, "naturalistic" method, in which he filmed a fairly small number of encounters, and analysed them in exhaustive detail, without having any particular hypothesis in mind at the outset. He was content to spend most of one year on a total of 46 minutes of film. Kendon's later work includes an analysis of greeting patterns at a New York open-air party, in which he described the three phases of greeting: distant salutation, a period of looking away until guest and host were close to each other, followed by embrace or handshake.

Michael Argyle's study of the effect of distance on eye contact and various researches by Ralph Exline were more rigorous and more experimental. Exline tricked the people in his experiment into complicity in a minor act of dishonesty, then confronted each individual with the fact of having cheated, while recording his or her ability to continue looking Exline in the eye. People accused of cheating mostly avoided returning Exline's gaze, all expect the ones with high scores on a measure of "Machiavellian" personality.

Argyle and Janet Dean went one step further and constructed a theory of gaze as social behaviour. They placed pairs of people two feet, five feet or ten feet apart, and found that the closer together people were, the less they looked each other in the eye. Argyle argued that the amount of time you look someone in the eye is both a reflection of and a means of controlling how intimate you want the encounter to be. So too is the distance you place yourself from the person. Assuming a "steady state" of intimacy, an increase in intimacy produced by one aspect of behaviour will be compensated for by a corresponding decrease in another. If the other person gets too close, you can control the

greater intimacy this produces by looking away more.

After reviewing these pioneering studies in some detail, Rutter goes on to describe subsequent research, which showed that people do not, as Kendon argued, use looking at and away from each other as a way of deciding who shall speak when. Rutter dismissed Kendon's hypothesis because "either the speaker did not give a look at the end of the utterance or, if he did, the listener missed it, because he was looking elsewhere".

Rutter devotes quite a lot of space to describing his own most carefully conducted researches. It was Rutter who improved enormously on the very crude early technique of measuring a subject's eye-contact by peering over the shoulder of the person he might be looking at, and pressing a stop-watch. Besides being inherently unreliable, this technique creates systematic error and bias. In the Argyle and Dean study, the further the subject was away from the confederate, the further away also was the observer. Hence the discovery that people ten feet apart look at each other less might be an artefact, because the observer, being also ten feet away, cannot see when the subject is looking at the confederate. To avoid this artefact, Rutter's concealed television camera is trained over each person's shoulder and zoomed in, so that the subjects are not seen, but merely the observer free from error produced by distance, but free also from possible bias created by

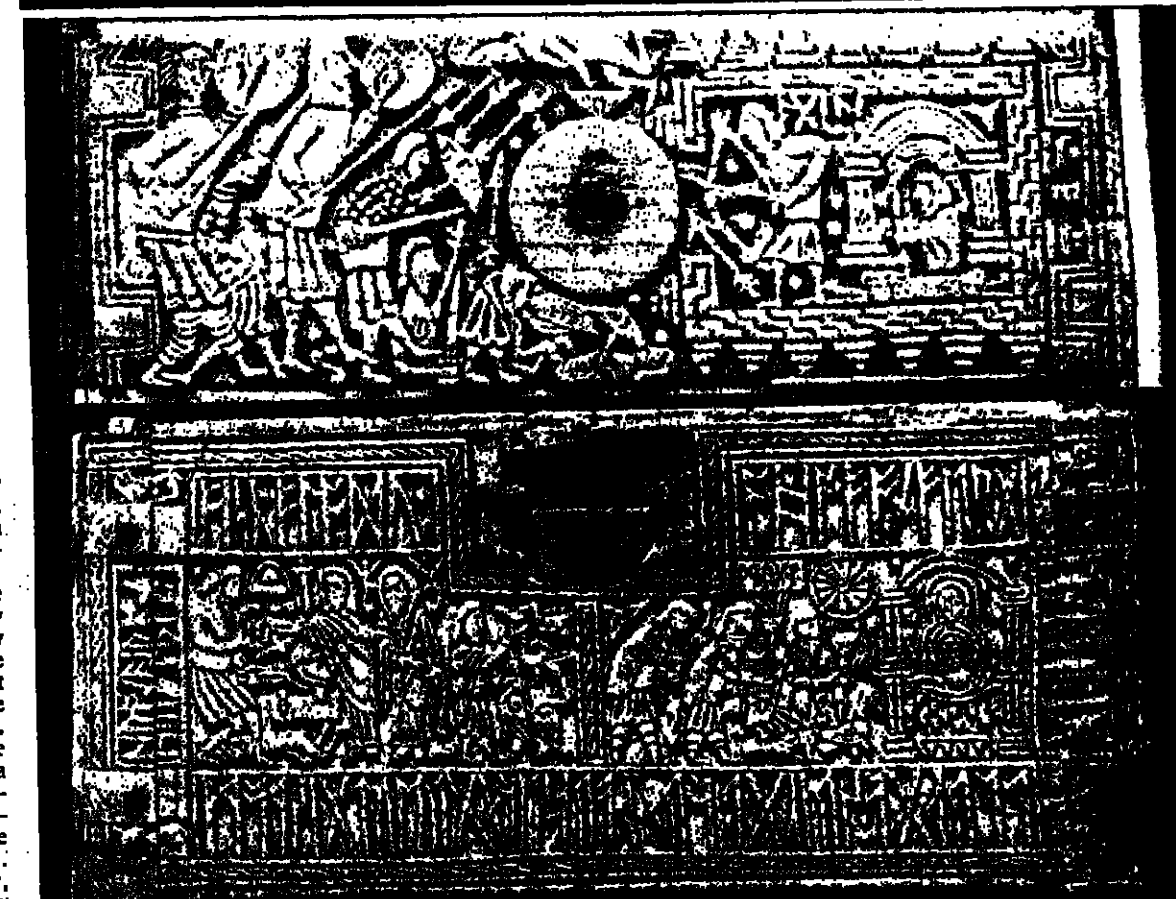
knowing the distance between the subjects.

Rutter's coverage of the literature is very thorough. He is suitably critical of the studies he describes (including his own), and points especially to the artificiality of some studies. What seems to be lacking in his scholarly review is a wider perspective: he makes little or no reference to cross-cultural differences, nor to animal research, or indeed to anything not published in social psychology journals.

Early researches and case-studies sought their relevance largely in social skills training: it was argued that some categories of maladjusted or mentally ill people failed to interact normally, which aggravated their problem, so that training in conventional behaviour, based on researches on the function of gaze direction, could help them. Rutter's own researches tended to undermine this argument, by showing that larger, more carefully selected samples of schizophrenic or depressed people did not seem to differ much in their use of looking in conversation. Instead, Rutter sees the relevance of the research he reviews in two areas; the interaction of blind or partially blind people, and what happens when people have to converse without seeing each other, by telephone.

Mark Cook

Mark Cook is lecturer in psychology at the University College of Swansea.



Lid and front panel of the Franks Casket, an eighth-century whalebone box found at Auzon, Haute Loire (now in the British Museum); from *Arthur MacGregor's Bone, Antler, Ivory and Horn: the technology of skeletal materials since the Roman period* (Croom Helm, £35.00).

Human processors

Memory and Awareness: an information-processing perspective by Robert L. Klatzky
Freeman, £18.75 and £8.95
ISBN 0 7167 1599 6 and 16003

Roberta Klatzky's book, a discussion of theoretically important issues, claims to deal with the problem of consciousness within the influential framework of man as a processor of environmental information. That framework is based loosely upon a computer analogy in which information is acquired, then processed through definable stages of representation, and used in the preparation and presentation of responses. This mechanistic model of man does not seem to lend itself readily to the notion of consciousness and subjective experience, an explanation of which remains as one of the major outstanding problems for the life sciences.

If the information processing model of human behaviour has any validity, it should be able to present an account of

our awareness of our surroundings. If and when the attempt succeeds, the information processing psychologist will not only have solved a monumental problem, but will also have provided computer scientists with a model of how to introduce consciousness into their machines (assuming that computers are not aware already). For this to happen we will need an explanation of the adaptive purpose of consciousness, but there is little on this issue in Klatzky's book, and consequently the discussions seem abstract and detached.

The discussion starts ominously with definitions of the words "awareness" taken from Webster's Dictionary. Given that Webster has never been known for his insights into psychological thinking, this says little for the confidence of an author setting out on theoretically perilous waters. The perils, however, are not so much successfully encountered, as avoided. Klatzky refrains from speculation as to the nature of awareness and presents instead a brief summary of contemporary thinking on attention and on what is elsewhere described as "meta-memory" - what we think we know about our own memory processes.

How should we investigate behaviour as to awareness? Klatzky presents a valuable review of the limitations associated with the use of

introspective reports of mental processes, and of recent debate on the issue of whether psychologists can believe the things that people say about their own behaviour. As with much of the discussion, Klatzky writes with great caution, and the book would have benefited from an expansion of these methodological considerations.

The most controversial part is an isolated chapter on what Klatzky calls "on-line awareness", a term that is meant to refer to the "here and now" current contents of consciousness. Implicit in a limited-capacity view of attention, in which cognitive resources must be allocated to certain processes if they are to be completed, and with little justification we are also presented with a dichotomy between attentional processes and automatic processes. These are contentious assumptions, and deserve a more thorough examination than they receive here. The dichotomy is perhaps commonly held, but it is not without its critics.

The notion of automatic processing, however, is very attractive, and necessary to a limited-capacity view in that resources may be allocated to increasingly complex levels of skill control. The Wimbledon champion does not attend to low level subskills such as her grip on the racket handle, anticipating the ball's trajectory, or

Isolated gains

Psychology and Social Problems: an introduction to applied psychology edited by Anthony Gale and Antony J. Chapman
Wiley, £18.50 and £8.95
ISBN 0 471 90313 2 and 90314 0

"We consider that most of the skills and techniques available to psychology could and should be deployed in a wide variety of contexts", announce Gale and Chapman on the first page of their edited textbook of applied psychology. As is customary in such publications, the introductory chapter declares the virtues of the discipline to which students are being introduced.

Psychologists are to be seen as experts, equipped with theories and techniques, which enable them to alleviate the distress suffered by the victims of all manner of social problems. As well-connected professionals, psychologists should "understand and maintain discourse with government agencies", they diagnose the difficulties, make an "intervention". All in all, "the psychologist has a special and unique role to play in helping to relieve personal distress". Fortunately, the hard sell of the

introductory chapter is not maintained by the experts themselves, who have contributed chapters on individual problems, ranging from delinquency and industrial relations to those like ageing and blindness. The editors are to be commended not only for ensuring that their contributors discuss their problems clearly in a way suitable for expert and layperson alike, but also that each chapter follows the same pattern. The result, however, is not quite what was intended.

The typical chapter, having efficiently identified the scope of the problem, discussing for example official statistics for accident rates or the incidence of depression, then goes on to describe the sorts of things the professional psychologist has done to improve matters. In the main, behavioural treatments are leading the field at the moment, but "problem-solving approaches" are making a strong bid on the rails. Some of the interventions seem a bit like common-sense transposed into jargon. For example, "reality orientation" for the aged seems to consist of adding to questions such as "Would you like tea or coffee?" the helpful prefix "It's now eleven o'clock, Mrs Brown; and time for a drink".

The troubles start when the authors assess the effectiveness of these interventions. Chapter after chapter repeats that the results from the studies of evaluation have been "rather disappointing". To be sure there are some reported successes, such as the improved techniques to help the blind become more mobile. Nevertheless, these seem to be isolated gains, and more typically are comments that conclusive evidence is "surprisingly difficult to come by", the research reveals a "generally depressing picture", and there is a "paucity of hard evidence about the effectiveness of treatment". Even reality orientation has not proved to be much of a success. In other words, the professionals are not operating on the basis of established scientific fact, but with a hope and a prayer that the latest technique will turn out to be the winner.

There is a lesson in all this. A few years ago, a textbook of applied psychology would not have shown such candour. Instead, the hard sell would have been maintained throughout to give the impression that, if only there were more professional psychologists, social problems would disappear. In those days, of course, there were less opportunities for the applied psychologists. Now that the career structures are established, the professionals have gained greater confidence, not to solve the social problems, but to admit the fragility of their professional knowledge. Only when the emperor is secure in his power, can he tell his subjects that the royal robes, so impressive at a distance, are scarcely pinned together.

Michael Billig

Michael Billig is professor of social science at Loughborough University.

A paperback edition of Peter Bull's *Body Movement and Interpersonal Communication*, reviewed in *THE TIMES* of January 13th, 1984, has been published by Wiley at £6.95.

disappears from awareness. The three chapters on "epistemic awareness" and "personal models of memory" are concerned with what people know of their own powers of retention, and the errors of underestimation and of over-estimation which we make. There are also brief descriptions of the "tip-of-the-tongue" and "feeling-of-knowing" experiences which are so well discussed whenever psychologists are cornered at social occasions. These chapters include curiously inserted sections on ageing, amnesia and photographic memory as well as a more appropriate but regrettably brief examination of memory under hypnosis. The influence of changed states of awareness might have formed a substantial part of this review of memory experiences.

Klatzky does concede that her book is an attempt to organize and illustrate rather than to theorize. Given the current interest in these problems, and given the wealth of speculation being generated about the issue of how best to provide a psychological description of awareness, the discussion is underplayed. It is time to move forward.

Geoffrey Underwood

Geoffrey Underwood is lecturer in cognitive psychology at the University of Nottingham.

Formula forest

Introduction to Statistics for Geographers and Earth Scientists by R. B. G. Williams
Macmillan, £6.95
ISBN 0 333 35275 0

"The facts are imaginary", so says Dr Williams in the opening paragraphs of his chapter on hypothesis testing. Turning the quotation back to front, we can take a mix of observation and imagination, form it into a hunch and cast it into a tested hypothesis that we can use for further constructions. This is the essence of the approach taken in the book: to have a good, long look at observations and the inferences that may be squeezed from them. Williams calls this "inferential statistics", to distinguish it from "descriptive statistics", which has the aim of organizing and summarizing the data so that they may be presented in a form more readily assimilated, whether this presentation be numerical or graphical: tables or pie charts.

Some may argue, correctly, that statistical applications are sometimes motivated by a Parkinsonian syndrome consequent on increasingly ready access to digital computers: the more computers there are, the more applications we can come up with. But the proliferation of data sources, and the needs for their integration, introduce a complexity, the conceptual patterns of which can be appreciated only after the analytical tools have been wielded.

This becomes most important when management, even political, decisions have to be made in an increasingly complicated legal, fiscal or environmental framework. Is acid rain devastating lacustrine fish stocks? Are the tropical forests disappearing uncontrollably? Will North Sea oil dry up by the end of the century? Can husbandry ameliorate the effects of the Sahelian droughts? Crystal balls might help, but statistics, though less colourful, are likely, if correctly applied, to aid in the provision of more confident answers.

Assuming elementary mathematics and offering straightforward techniques illustrated by worked examples, Williams aims to provide a comprehensive introduction to the application of statistics to problems in geography and Earth science. Not only is his book comprehensive; it covers some potentially elusive techniques in a way that is attractively straightforward, yet as rigorous as a non-mathematical approach will allow. To assist the user, the most difficult sections are marked for omission during the first reading.

For the teacher, the book seems to fall naturally into two parts. The six earlier chapters cover numerical data, populations and samples, frequency distributions, central tendencies, dispersion and skewness, binomial and Poisson distributions, and normal and lognormal distributions. The chapter on numerical data is uncharacteristically short, but the remainder provides good coverage. I was particularly impressed by the sections on sampling, classification and the binomial, and lognormal distributions, where many detailed but crucially important points are not skipped over lightly. The six later chapters on hypothesis testing, confidence limits and various correlation

and regression methods are presented carefully throughout, with some very nice discussion concerning the interpretation of correlation coefficients, another subject often abbreviated or missed altogether. However, there is little guide to the contents of the oft-mentioned companion volume *Intermediate Statistics for Geographers and Earth Scientists*, also by Dr Williams and due to be published by Macmillan in late 1985. Consequently, reading this book resembles walking the plank. With the increasing refinement of the methods, we edge further and further, to be deposited unceremoniously into a sea of statistical tables (the numbers in some of which are printed in a very small typeface). Neither is the guide to further reading particularly certain. The list of references, howbeit, runs to seven pages and covers fields that range from agriculture, via civil engineering and ornithology, to soil science; the worked examples, on the other hand, tend to be restricted more to human and physical geography. The illustrations, in the form of line diagrams, have been well designed and labelled.

This book will be most useful for non-mathematicians who want to be sure that not too much will be overlooked, and it provides some nice reminders for mathematicians charting the formula forest. There is nothing, however, on orientations: do geographers and Earth scientists never go places by the compass?

R. F. Cheney

R. F. Cheney is lecturer in geology at the University of Edinburgh.

Novel glasses

Physics of Amorphous Materials by R. Elliott
Longman, £25.00
ISBN 0 582 44636 8

Study of the solid state of matter is a branch of science that is assuming increasing importance as new materials, many with unique properties, are synthesized in the laboratory and utilized commercially. Semiconductor for use in solid-state lasers and the microprocessor industry, new metallic alloys with exceptional mechanical characteristics, polymers, superconductors and magnetic materials are examples of a vast range of solids currently under investigation.

For many decades the emphasis in solid-state physics research has been on crystalline materials, that is, substances in which the constituent atoms are positioned in a regular, ordered

arrangement, a three-dimensional mosaic, the basic structure of which is repeated billions and billions of times, even in the smallest of samples. Yet there are many substances in which the atoms do not possess such long-range order. Glasses of various kinds are the best-known examples and these are by no means new materials; mankind has made glass for thousands of years and what has amazed scientists recently is the discovery of new alloys, some of which are similar to ordinary window glass but of much greater transparency (and hence suitable for optical fibre communication links), others that are opaque and can conduct electricity, and yet others that behave as semiconductors and have considerable potential in solid-state electronics.

The atoms in a glass are not arranged in a periodic lattice but in a disordered manner - not as possible in a solid, rather as in the structure of a frozen liquid. The supercooling of the molten state is the most familiar method of producing glasses. However, there are many other ways of preparing disordered solids and the generic term amorphous

is used to describe all such non-crystalline materials.

A theoretical understanding of amorphous solids is, not easy to achieve, and this is probably why serious scientific study of them did not commence in earnest until the beginning of the last decade. Elliott's book describes the principal experimental and theoretical advances which have contributed to our understanding of the physics of amorphous materials during the intervening period. It is a multi-purpose monograph, suitable for students and professional scientists who wish to enter the field and refer to it as a source of information and reference. For those already engaged in it, it is such a very large, complex and fast-moving subject, the author is to be commended for the clarity of his exposition. His own contributions to the field are modestly woven into the fabric of a most attractive text.

There are chapters on preparation, structure, and the electrical and optical properties of a wide variety of materials. A separate chapter is devoted to defects, that is, faults in an otherwise fully connected network, which are a ubiquitous feature of crystalline as well

fast-operating electrical switches (for possible use in computer memories), solar cells (used in place of batteries in pocket calculators, for example, but of wider significance in terms of large-scale solar energy conversion), and thin-film transistors have all been developed in parallel with research on basic materials.

This book will appeal to physicists, chemists, engineers and material scientists who have either a fundamental or an applied interest in this exciting, new branch of solid-state science.

Universities continued

UNIVERSITY OF ZIMBABWE

Applications are invited for PROFESSORSHIPS in the following Departments:

INAUGURAL PROFESSOR/CHAIRMAN in the DEPARTMENT of METALLURGY (available 1.3.85)

It is envisaged that the appointee to the Chair will be a Metallurgist of academic repute with administrative, teaching and industrial experience. He will be required to initiate and develop undergraduate and postgraduate programmes in the new Department, to stimulate research activities within the Faculty and to maintain close links with the Engineering Professions and Industry in Zimbabwe. Corporate Membership of the Institution of Mining and Metallurgy or other appropriate engineering institution is essential. Opportunities exist for consultancy work.

DEPARTMENT OF CLINICAL PHARMACOLOGY

Applicants must have MRCP or equivalent higher qualification, evidence of clinical and organizational skills for undergraduate and postgraduate teaching, as well as the capacity to conduct and stimulate research in clinical pharmacology. An African setting would be an advantage. A cumulative and sustained record of research of recognised international excellence is required.

Applicants are invited for LECTURESHIP/SENIOR LECTURESHIP/ASSOCIATE PROFESSORSHIPS in the following Departments:

DEPARTMENT OF PRECLINICAL VETERINARY STUDIES (seconded to the Department of Animal Science) Animal Production

Applicants should preferably have a PhD in Animal Production and have contributed to their field as evidenced by publication in internationally recognised journals. The successful candidate will be responsible for teaching a course of Animal Production to third year Veterinary Science and second year Veterinary students. This course includes production of beef and dairy cattle, pigs, sheep and poultry. He/she will also be responsible for the establishment of research programmes in animal production and supervision of postgraduate students in this discipline.

DEPARTMENT OF CROP SCIENCE (Grassland Scientist)

(Appointment will be for two years in the first instance)

Postgraduate qualifications are required and research experience is essential in the field of improved pastures and range management, with particular reference to the utilization of pasture by livestock.

DEPARTMENT OF CURRICULUM STUDIES (2 posts)

Post A (HISTORY): Applicants should preferably have an honours degree in history, a postgraduate certificate in Education with history as one of the subject areas of study, and at least a Masters degree in curriculum theory. The successful candidate will be required to teach Grad. C.E. history methods, S.E. history and to offer at least one area of curriculum theory from the following areas: foundation of the curriculum, curriculum planning and curriculum evaluation.

Post B (RHONA): Applicants should be able to function in the area of teaching African Languages (both as first and second languages) to Graduate Certificate in Education and Bachelor of Education degree students. Teacher Training experience and ability to teach in all areas of curriculum theory (postgraduate level) will be an advantage. The areas offered at this level are: curriculum design, curriculum change, curriculum evaluation, curriculum planning and supervision. Candidates who wish to be considered for Staff Development Fellowships may also apply.

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

Preference will be given to candidates with a doctorate in educational administration. Candidates must be qualified in three or more of the following areas: (i) educational organizational behaviour, (ii) administrative theory, (iii) administrative behaviour, (iv) economics of education, (v) measurement and evaluation, (vi) educational planning, (vii) research methodology and statistics, (viii) philosophy of educational administration. The successful candidate must also be able to design and teach courses in the above areas and supervise research at the BEd, Diploma, Masters and doctoral levels. A knowledge of the system of education in Zimbabwe will be an advantage.

DEPARTMENT OF EDUCATIONAL FOUNDATIONS (3 posts)

A: EDUCATIONAL PSYCHOLOGY (2 posts): Applicants should have a minimum qualification of an M.A. or an M.Sc. in Educational Psychology. However, preference will be given to those with a doctorate. The successful applicants will be expected to lecture in Educational Psychology in the following degrees and diplomas: B.Ed., Dip.Ed., Grad. C.E. and M.Ed. A minimum qualification of an M.A. or M.Ed. degree is required with a major in the special area of Sociology of Education. Preference will be given to applicants with a doctorate in Sociology of Education.

B: SOCIOLOGY OF EDUCATION (1 post): The successful applicant will be expected to lecture in the Sociology of Education in the following degrees and diplomas: B.Ed., Dip.Ed., Grad. C.E. and M.Ed. A minimum qualification of an M.A. or M.Ed. degree is required with a major in the special area of Sociology of Education. Preference will be given to applicants with a doctorate in Sociology of Education.

DEPARTMENT OF BIOLOGICAL SCIENCES (2 posts)

Post A (FISHERIES BIOLOGIST): Applicants should possess training and a proven record of research in some aspect of Fisheries Biology related to the study of inland waters. The successful candidate will be required to contribute to undergraduate research at BSc General and BSc Honours levels in ecology and vertebrates and to supervise postgraduate students in his area of specialization. A PhD or equivalent research experience would be the normal minimum qualification.

Post B (CELL BIOLOGIST): A lecturer is sought to provide basic undergraduate courses in cell biology to the multidisciplinary department, in addition to introductory courses that lecturer would be expected to contribute to specialized Honours and postgraduate programmes. In this respect interests in immunology or development would be of particular value to the Department but candidates from any area of cell biology are encouraged to apply. A PhD or equivalent research experience would be the normal minimum qualification.

DEPARTMENT OF PSYCHOLOGY

Applicants should be trained in the general area of cognitive psychology with special interest in experimental child psychology. A postgraduate qualification in psychology is required.

DEPARTMENT OF SOCIOLOGY

Applicants must be qualified in social research methods and statistics, and in one or more of the following fields: Sociology of Communication, Sociology of Law and Society, or of the Family.

SALARY SCALES

2391,280-520,070 (including allowances)
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N.B. in addition to the above gross salary, an allowance for housing is payable. The allowance is based on the value of the property occupied by the appointee.

Appointments are made on a permanent basis. Short-term contracts are offered. Persons who are not Zimbabwean citizens may be appointed only on short-term contracts which will be subject to renewal. Short-term contracts are, in exceptional cases, be awarded.

For further information and application forms, please contact the Registrar, University of Zimbabwe, P.O. Box 167, Mount Pleasant, Harare, Zimbabwe. Tel: 06-252 111. Applications in the UK should be sent to the Registrar, University of Zimbabwe, P.O. Box 167, Mount Pleasant, Harare, Zimbabwe. Tel: 06-252 111.

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THE UNIVERSITY OF SUSSEX

Chairs of Computing Science, Cognitive Psychology and Linguistics

Applications are invited for three Chairs in the fields of Computing Science, Cognitive Psychology and Linguistics. The appointees, if their areas of specialism are appropriate, will be expected to participate in the work of the newly founded Institute of Cognitive and Information Sciences, which has been established to promote collaborative research in these and other information-related disciplines. Salary not less than the professional minimum £16,070 plus £55 benefits. Starting date 1st October 1985.

Chair of Computing Science

This new Chair has been endowed by Euronet International. It is hoped that the person appointed would have an interest in systems software, languages or theoretical computing science and would play a leading part in the establishment of new teaching programmes.

Chair of Cognitive Psychology

This is a new Chair, in the Sussex Group created by the recent amalgamation of Developmental and Social Psychology. Psychologists at Sussex have been active for the last ten years in the University's interdisciplinary Cognitive Studies Programme. Applications will be welcomed from persons with interests in any branch of the subject.

Chair of Linguistics

This is the Chair held until recently by Professor John Lyons, FBA. Applications will be welcomed from persons with research interests in any of the following special subjects: computational linguistics, semantics, psycholinguistics, speech production, speech perception, sociolinguistics, anthropological linguistics or the linguistics of European languages. Candidates with other research interests will, however, also be considered. Further particulars and an application form are available from Mrs L. Widen, Personnel Officer, Sussex House, The University of Sussex, Falmer, Brighton, BN1 6QH, Telephone Brighton (0273) 607678 Ext. 434. Closing date for all three Chairs 31st January 1985. (17363)

LONDON SCHOOL OF ECONOMICS

ESRC CENTRE IN ECONOMIC COMPUTING

The Economic and Social Research Council Centre in Economic Computing, now established at the London School of Economics and Political Science, wishes to appoint a System Analyst/Programmer.

The Centre has been established to provide computing support to economists in the academic community, industry and commerce. The Centre is funded initially by the Economic and Social Research Council with the aim of becoming self-financing.

An important part of the Centre's work is making available to a wide base of programme for new techniques developed in universities. The work involves developing new user interfaces for existing programmes and incorporating help and guidance in the use of the techniques in the documentation and wherever possible in the program itself. The ability and willingness to produce and maintain both program and documentation is of particular importance.

The Centre is currently developing systems providing convenient access to economic data bases used for the management and analysis of economic data. The Centre work involves use of micro computers and the techniques available in the School and the University. Other facilities in other universities are also used, often via the university network. Knowledge of the implementation of application systems is required and some knowledge of computer techniques could be an advantage.

An excellent opportunity is offered to the successful applicant to play an important part in the work of the Centre and to influence the future development of Economic Computing.

The appointment, which will be until 30 June 1986 in the first instance, will be on the Grade 1A scale for academic-related staff: £7,520 to £12,150 a year. London Allowance of £1,223 a year is payable in addition.

Method of application: application forms and further particulars are available, on request of a stamped, addressed envelope, from the Administrative Officer, Room H816, The London School of Economics, Houghton Street, London, WC2A 2AE. Closing date for applications: 21 January 1985. (17363)

La Trobe University

Melbourne, Australia

School of Behavioural Science

RESEARCH FELLOW IN PSYCHOLOGY

(Ref. No. A0131/001)

Applications are invited for a research fellow in the area of Psychology.

The successful candidate will be expected to contribute to the research programme of the School of Behavioural Science.

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University of the South Pacific

1. PROFESSOR OF CHEMISTRY

(Post 84/136)

Applications are invited for the post of Professor of Chemistry within the School of Natural Resources.

Applicants should have a proven record of teaching, research and administrative experience in Chemistry. Experience in determining tertiary education priorities in a developing country context would be an advantage. The Head of Chemistry has overall responsibility for the Chemistry component of teaching programmes which include undergraduate, postgraduate and continuing education courses. BSc-PCET and BEd degrees and for postgraduate work and research. Staff may also be involved in consultancy, research and development projects for developing countries. The successful applicant will be expected to participate in the work of the newly founded Institute of Cognitive and Information Sciences, which has been established to promote collaborative research in these and other information-related disciplines. Salary not less than the professional minimum £16,070 plus £55 benefits. Starting date 1st October 1985.

2. PROFESSOR OF ACCOUNTING

(Post 84/141)

Applicants will have appropriate academic qualifications, considerable experience in teaching and research, practical experience in accounting, and a proven record of research and administrative experience in a developing country context.

Further information and an application form are available from Mrs L. Widen, Personnel Officer, Sussex House, The University of Sussex, Falmer, Brighton, BN1 6QH, Telephone Brighton (0273) 607678 Ext. 434. Closing date for all three Chairs 31st January 1985. (17363)

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